B. confervoides Kremp. On shingle.

5. Bossington near Porlock (1913; N.R.C.); Greenaleigh Point (K., B.M.S. 1921).

B. colludens (Nyl.) Tuck., occurs in Dorset and I think that I have seen it near Blue Anchor in v.c. 5.

FAMILY XVI. RAMALINACEÆ

Ramalina calicaris (L.) Fr. Common on trees. First records: 6, Red Lynch (1877; P.). 5, Taunton (1908; W.o.S.). 0-1300 ft.

Var. subampliata Nyl. Adcombe near Taunton (1924).

R. fraxinea (I.) Ach. Common on trees (W.o.S., B.M.S.). Var. taeniformis Ach. is taken as the type. First records: 6, near Frome (1869; P.); 5, Taunton (1908).

Var. ampliata Ach. On old trees (oak, ash, elm, apple,

lime).

5. Haydon (1908), Norton, Stoke, Staple, Orchard Portman, Trull and Poundsford near Taunton (W.o.S., N.R.C.).

6. Bruton (1907); Somerton; Shapwick.

Form monophylla Cromb. has been noted on elm in 5, Norton (N.R.C.) and in 6 at Somerton.

Var. calicariformis Nyl. On trees in oak-ash woods.

- 5. Pickeridge near Taunton (1913; N.R.C., B.M.); Orchard Portman; Combe St. Nicholas.
- R. fastigiata (Pers.) Ach. Very common on trees and occasionally on pales, 0–1600 ft. (W.o.S., B.M.S.). Collected in 1869 from Standerwick (6) by Dr. Parsons and in 1908 from Taunton (5).

Form minutula (Ach.) Cromb. Usually on pales.

5. On trees, Poundsford, Norton and Oake near Taunton.

Var. nervosa Nyl. has been noted from Taunton.

R. farinacea (L.) Ach. Common on trees, 0–1600 ft. Collected in 1869 near Frome (6) by Dr. Parsons and in 1908 from Taunton (5).

Form pendulina Ach. Pendulous on trees.

5. On beech, Exford (1915; N.R.C.), and Bewley Down. Buncombe Wood near Taunton; Langford Budville.

6. Copley Wood, Somerton (1923).

Form phalerata Ach. Usually on pales.

5. Poundsford near Taunton (1923).

6. On pale, Cole (1906; N.R.C.). On old oak, Shapwick.

R. pollinaria (Westr.) Ach. On trees.

- 5. Frequent in Taunton district (1908; W.o.S., N.R.C.); Staple Hill; Combe St. Nicholas; Watchet; Wembdon near Bridgwater (Corder).
- 6. Vallis (1869; P.); Frome; Christon; Somerton.

Form humilis (Ach.) Cromb. On walls, trees and pales.

- 5. On brick walls, Taunton (1908; L.E.R., N.R.C., B.M.) and Cheddon Fitzpaine. On flint of barn wall, Combe St. Nicholas. On oak, Staple Fitzpaine. On poplar and on pales, Pitminster.
- 6. Somerton (1923).

Form intermedians Oliv.

5. On oak, Staple Fitzpaine (1920).

Form cucullata Harm. On brick wall, Taunton (1908).

- R. evernioides Nyl. Infrequent on trees.
 - 5. Williton (1928).
 - 6. Somerton (1928).
- R. scopulorum (Retz.) Ach. (R. siliquosus A.L.Sm.). On rocks and boulders near the sea.
 - 5. Minehead, with forms tuberculosa Oliv., and cornuata (Ach.) Harm. (1911).

Var. incrassata Nyl.

5. Minehead (1908; N.R.C.).

- R. cuspidata (Ach.) Nyl. Included in R. siliquosus in B.M., 1918. On maritime rocks and boulders; rarely on hills at a distance from the sea.
 - 5. Minehead (1908); Selworthy; Volis Hill near Taunton. Form *rugosa* Oliv.
 - 5. Minehead; near Selworthy church.

Form pygmaea (Wedd.) Harm. (f. minor Nyl.). Minehead (N.R.C.).

- R. subfarinacea Nyl. On rocks, very rarely on trees.
 - 5. On wall, Minehead (1908).
- R. polymorpha Ach. On shingle. Very rare.
 - 5. Blue Anchor (1922); Dunster.

FAMILY XVII. LECANIACEÆ

Solenopsora candicans (Dicks.) Zahl. (Placolecania c. Zahl.; Diphratora c. Jatta.). On calcareous rocks and walls. Frequent.

5. Taunton (1915) and Forde Abbey (N.C.R.); Stoke St. Mary; Bishop's Hull; Oake; Wiveliscombe; Pucking-

ton; Wambrook; Whitestaunton; Wellington.

6. Claverton Down near Bath (1809; E.F.); Wells, Cleeve Hill (W.J.), Weston (Hb.R.) and Walton-in-Gordano (B.M.); Mells (P.); Uphill; Brean Down; Bleadon; Loxton; Shipham; Mendip (N.R.C.); Clevedon; Yatton; Wrington (B.M.S.); Somerton.

Lecania erysibe (Ach.) Mudd. On rocks, occasionally on trees (on elm, Higher Thurlbear) or pales. Common throughout the county (Lich.C.S.; J. of Bot. 1924). First records:

6, Bathampton (H., B.M.); 5, Taunton (1912).

Form crenulata B. de Lesd. Curland (1922), in v.c. 5.

Var. cinereofusca Mudd.

5. On calciferous sandstone wall, Langford near Taunton (1914).

6. On carboniferous limestone, Brean Down (1914; N.R.C.). Var. subcaesia Nyl.

5. On white lias wall, Thurlbear (1922).

Var. rabenhorstii (Hepp.) has apothecia which become convex and immarginate and is synonymous with Biatora proteiformis Mass., sec. Harmand. Crombie in B.M., 1894, records proteiformis from Bathampton, but the specimen in the B.M. from that locality (leg. H.) is the type. He also says that the spores are smaller and narrower (2–4 micromillimetres) than in the type, and this statement is borne out by an examination of the plants found on limestone rocks near Taunton.

5. White Lias walls near Taunton (1915; N.R.C.); Halsway and Crowcombe; Chard.

Var. sincerior (Nyl.) B. de Lesd.

5. Cheddon Fitzpaine (1928).

6. Clevedon (1923).

- L. albariella (Nyl.) Mull. On calcareous rocks and walls.
 - 5. Orchard Portman (1918) and Hele near Taunton; Lilstock.
 - 6. Burnham (1927).

Form lecideina Nyl.

- 5. Kilton (1918); Combe St. Nicholas.
- L. prosechoides (Nyl.) Oliv. On maritime rocks.
 - 5. On sea face of cliff near Greenaleigh Point (1920).
 - 6. Clevedon (1924); Sand Bay.
- L. prosechoidiza (Nyl.) A.L.Sm. On maritime rocks. Very rare. Minehead (5) and Steep Holm (6; J. of Bot. 1924).
- L. dubitans (Nyl.) A.L.Sm. (L. dimera Th.Fr.). Very rare.
 - 5. On wood of hut, Withypool (1918).
- L. syringea (Ach.) Th.Fr. On trees and pales. Rare.
 - 5. On pales with form *minuta* (B. de Lesd.), Cutley Farm near Taunton (1922). On elder, Clatworthy, Minehead and Watchet. On trees, Nailsbourne near Taunton, Langford Heathfield (f. *minuta*) and Tolland.
 - 6. On trees, Somerton (1923).
- Thalloidima coeruleo-nigricans (Light.) Th.Fr. On calcareous rocks, occasionally on calcareous soil (Lich.C.S.).
 - 6. Bathford (1856; B., B.M.); Cleeve Hill and Yatton (W.J., B.M.); Berrow (S.D.); Uphill; Goblin Combe.

Form glebosa Cromb.

- 6. Yatton (1877; W.J.).
- T. candidum (Web.) Mass. On calcareous rocks and soil.
 - 6. Cleeve Hill (1877; W.J., B.M.); Yatton and Goblin Combe (B.M.S.).
- Biatorina littorella (Nyl.) A.L.Sm. On hard rocks. Very rare.
 - 5. Ruborough Camp, Broomfield (1914; N.R.C., B.M.); North Hill, Minehead (K., B.M.S., 1921).
- B. pilularis Krb. On mossy trunks of trees.
 - 5. Horner Wood (K., B.M.S., 1921).
- B. graniformis (Hag.) A.L.Sm. (B. ehrhartiana Mudd.). On pales, occasionally on tree-trunks.
 - 5. On oak, Bagborough.
 - 6. On old pine, Shapwick (1916; N.R.C.); Weston-in-Gordano.

- B. cyrtella (Ach.) Th.Fr. (Lecania c. Oliv.). On the bark of elder.
 - 5. Broomfield (1920); Combe St. Nicholas; Ely Wood near Chard.
- B. griffithii (Sm.) Mass. [B. tricolor (With.) of many authors]. On trees, usually those with smoothish bark.
 - On oak, Broomfield (1916). On willow, Buckland St. Mary. Cutley and Norton near Taunton; Perriton Combe near Minehead; Langford Heathfield; Williton.
 - 6. Wrington Warren (1923; B.M.S.); Copley Wood, Somerton. Kingsdon.
- B. fallax (Hepp.) A.L.Sm. On elm bark. This plant was recorded by Larbalestier from Leigh Wood (6) in 1865, but there is no specimen in the B.M. A plant collected from Whitford above Corfe (5) in 1927 is probably this, but the material is insufficient to decide.
- B. globulosa (Flk.) Krb. is recorded from trees at Horner near Porlock (Paulson, B.M.S. 1921).
- B. lightfootii (Sm.) Mudd. On trees, especially birch.
 - 5. Chard Common (1914); Castle Neroche; Broomfield (beech) and Holford Combe (young oak), Quantocks; Dunster (ash).
 - 6. Berkley Hill (1869) and Orchardleigh (P.); Shapwick (1916).
 - Var. commutata (Ach.) Mudd. On the trunks of old trees.
 - 5. Chard Common (1913; N.R.C.).
 - 6. Shapwick (1916).
- B. synothea (Ach.) Krb. On old pales and tree-stumps, 0–1200 ft.
 - 5. Norton (1916), Cushuish, Cheddon and Kingston near Taunton; Crowcombe; near Bagborough Plantation.
 - 6. On pales, Ashcott (1924).
 - Forms fusca B. de Lesd. and sublivescens Nyl. have been noted from old stumps, Crowcombe.
 - Var. subnigrata Nyl. On rocks. A specimen, collected by Joshua in 1876 from Bathampton Downs and determined by Crombie, is in the B.M.
- B. atropurpurea (Schaer.) Mass. On trunks of old trees, rarely on the bryophytes covering the trunks.

5. Wood above Pitminster (1916; N.R.C.); Horner Wood (1921; K., B.M.S.). The apothecia of both these plants have the hymenial gelatine persistently blue with iodine. They therefore belong to *Lecidea atropurpurascens* Nyl., which is scarcely worth distinguishing even as a form.

B. lenticularis (Ach.) Krb. Common on rocks, especially ealcareous ones (Lich.C.S.), 0-1000 ft. First records: 6,

Bathampton (H., B.M.); 5, Quantoxhead (1915).

Form acrustacea (Hepp.). On Lynton slate wall, Shore-ditch near Taunton (1918).

Form nigricans Arnold. Usually on calcareous rocks.

5. Near Roadwater (1919); Kingston. On shingle near Minehead.

6. Bathampton (H., det. Crombie, B.M.); Goblin Combe; Cheddar; Ebbor Gorge; Pen Hill (leg. Corder).

Form oxydata Leight. (v. erubescens Krb.), occurs on a stone near a stream at Hatch Green (5). The coloration in this case is probably due to intermixed *Trentepohlia aurea*. A doubtful specimen was collected at Harptree Combe (6).

Var. chloropoliza (Nyl.) A.L.Sm.

6. Clevedon (1924).

B. prasina (Fr.) Syd. This is usually found on trees but a plant from a bare bank at Vexford near Stogumber (5) agrees (L.N. IV).

B. epiblastematica (Wallr.) A.L.Sm. (Scutula e. Rehm; S.

wallrothii Tul.).

6. On the thallus of *Peltigera rufescens*, Cleeve Combe (1923, Darbishire, B.M.S.).

- B. episema (Nyl.) A.L.Sm. Parasitic on crustaceous lichens.5. On Lecanora coilocarpa, Cheddon Fitzpaine (1915).
 - 6. On Aspicilia calcarea, Yatton (1875; W.J., B.M.).

Catillaria chalybeia (Borr.) Lettau. On siliceous rocks and stones.

5. Volis Hill (1917); Merridge and Cothelstone Beacon, Quantocks; Blue Anchor.

6. Pen Hill near Wells (1921; leg. Corder).

- Microphiale diluta (Pers.) Zahl. (Biatorina d. Th.Fr.; Gyalecta d. Wain.). Rare.
 - 5. On firs, Castle Neroche (1917); Whitford, above Corfe.

FAMILY XVIII. USNEACEÆ

Usnea florida (L.) Web. Common on the trunks and branches of trees, rarely on ling, rocks or sand, 0–1500 ft (W.o.S., B.S.M.). Collected from Taunton (5) in 1908 and from Bruton (6) in 1906.

Forms papulata Harm., annulata Arn., and sorediifera Arn.,

have been noted from the Exe Valley.

Var. hirta (L.) Ach. Common. Habitat and first records

as the type.

U. plicata (L.) Web. (U. ceratina Ach.). Common on trees, rarely on rocks. First records: 5, Kingston (1911); 6, Bruton (1907).

Form annulata B. de Lesd. has been noted at Treborough (5).

Form scabrosa Ach.. Frequent in 5.

Form ferruginascens Crombie has been noted at Whites-

taunton (5).

U. rubiginea (Mich.) Herre, recorded in N.R.C., does not appear to be worth a specific segregation, its affinity with red forms of U. florida (especially the var. hirta) being much too close. Plants having a red colour have been noted on the Blackdowns, Brendons and at Exton in v.c. 5 and near Longleat in v.c. 6. Most of these are pendulous and must be considered as red forms of U. plicata Web.

 $U.\ barbata$ (Huds.) Web.= $U.\ dasypoga$ (Ach.) Nyl. On treetrunks.

- 5. Exton (1915); Treborough; Culmhead, Bewley Down and Castle Neroche, Blackdowns.
- 6. Laverton (sec. P.). Near Longleat (1915); Penselwood. Form scabrata Nyl. On oak, near Brendon Hill (5) and near Longleat (6).

Var. pendula (Schaer.) Howe. (U. plicata Ach.).

- 5. Ley Hill, Porlock (1915); Exford, Exton, Holford Combe, Quantocks.
- 6. Stourhead to Longleat (1915).

Form scabrata Nyl. is coextensive.

U. articulata (L.) Hoff. On old trees. Rare.

5. On oak, Exton (1915; N.R.C.), Whitestaunton and Culmhead. On apple and elm, Northay near Chard.

6. Wood near Gare Hill (1915; N.R.C.).

Evernia prunastri (L.) Ach. Very common on trees, shrubs and heather (on ling, Blackdowns in v.c. 5), occasionally on pales, rarely on rocks or ground, 0–1700 ft. Form munda, which is without soredia, is taken as the type. First records: Taunton (1908; W.o.S.) for 5 and Frome (P.) for 6.

Form sorediifera Ach. Common (5, Puckington, 1915; 6, Somerton, 1923).

Var. nana Lamy. On rocks, Blue Anchor in v.c. 5 (1923; L.N. II).

FAMILY XIX. PARMELIACEÆ

Cetraria aculeata (Schreb.) Fr. (var. campestris Schaer., is taken as type). On the ground, soil-capped rocks and among mosses on heathy ground, usually on the hills (600–1700 ft.) but descending to sea-level on Minehead Warren. Frequent.

5. Exmoor (1912); Blackdowns; Quantocks; Croydon

Hill; Haddon Hill; Minehead and Dunster.

6. On siliceous heaths of Mendip.

Form subnigrescens Harm.

5. Blackdowns (1915; N.R.C.); Quantocks.

Form edentula Ach.

5. Leigh Hill and Staple Hill, Blackdowns (1915; N.R.C.); Dunkery; Treborough.

Form acanthella (Ach.) Nyl.

5. Leigh Hill and Staple Hill, Blackdowns (1915; N.R.C.). Var. hispida (Light.) Cromb. (Lichen muricatus Ach.).

5. On rocks, Cow Castle, Simonsbath (1916).

Platysma glaucum (L.) Nyl. On trees, especially oak, occasionally on rocks or on the ground. Frequent in the hilly districts.

5. Quantocks (1911); Blackdowns; Brendons; Croydon Hill; Exmoor (common).

6. Kingsettle Hill (on birch, 1915); Penselwood; Mendip. Form sorediosum Oliv. Probably coextensive with the type but with definite localities from v.c. 5 only.

Var. fallax (Web.) Nyl.

5. Cocker Combe, Quantocks (1911); Treborough, Brendons; Millon's Combe, Exmoor. On beech, Buckland St. Mary, Blackdowns.

6. Penselwood (1920).

Hypogymnia physodes (L.) Nyl. Very common on trees, frequent on pales, occasional on ling (Quantocks, Blackdowns, Exmoor and Mendip), ground (Will's Neck) or rock, 0–1700 ft. (W.o.S., B.M.S.).

Form labrosa Ach.. Common and coextensive with the type. Form viridis mihi. Thallus green, almost as green as in Parmelia caperata. On shaded trunk of beech, Buckland St. Mary, 900 ft. (1923). The peculiar colour is doubtless due to the shaded and moist habitat.

Var. tubulosa Schaer. Fairly frequent (N.R.C.). Habitat as in the type.

5. Buncombe (1908), Will's Neck and Holford Combe, Quantocks; Milverton; Wiveliscombe; Buckland St. Mary; Porlock; Exford.

6. Shapwick (1916).

Var. platyphylla Ach. On old pales and walls. Frequent.

5. Taunton district (1915; N.R.C.).; Crowcombe; Holford; Staple Hill; Buckland St. Mary; Croydon Hill to Dunster.

6. Standerwick (1869; P.!); Harptree Combe.

Parmelia perlata (Huds.) auct. plur. (P. trichotera Hue). Type is form sorediata (Schaer.). Common on the trunks of old trees, especially oak, occasionally on rock, 0–1500 ft. Collected by Dr. Parsons at Berkley (6) in 1869. The medulla of P. perlata Hue, has a rosy coloration when caustic potash solution is followed by bleaching powder. Specimens from Combe St. Nicholas and Otterford (and var. ciliata) show this reaction partly but no other Somerset specimen tested shows it. There is a great deal of doubt about Hue's naming and the confusion is not cleared by Du Rietz in 'Kritische Bemerkungen über die Parmelia perlata-Group' (Kristiania, 1924).

Form microphylla Wats. (N.R.C.). On flint wall, Combe St.

Nicholas in v.c. 5.

Var. ciliata (D.C.) Schaer., is frequent in v.c. 5 and has been noted at Somerton in v.c. 6.

Var. claudelii Harm. A plant found on rock, Wilmersham near Porlock (5), seems to belong here (N.R.C.), though there is some doubt as to the nomenclature of Harmand's plant. He gives it as a variety of *P. perforata*.

P. crinita Ach. (P. proboscoidea Tayl.). On rock, Horner

Wood (5).

P. caperata (L.) Th.Fr. (P. cyclisphora Ach.). Common on trees, rocks and boulders, 0–1200 ft. First records: 6, Great Elm (1894; P.); 5, Taunton (1908; W.o.S.).

Form sorediosa Malbr., is frequent.

Var. saxicola Müll., is rare, though saxicolous plants of the type are common.

5. On shingle, Porlock Weir (1917).

P. conspersa (Ehrh.) Ach. On rocks and boulders.

5. Selworthy Beacon (1913); Tarr Steps, Exmoor.

Var. isidiata (Anzi) Leight. On rocks or slated or tiled roofs.

- 5. Near Porlock (1913). Slate roof, Norton Fitzwarren church.
- P. laevigata (Sm.) Ach. On mossy rocks. Rare.
 - 5. Simonsbath (1908; N.R.C.); Thorncombe Hill, Quantocks.
- P. revoluta Flk. Common on mossy trees or rocks, 0-1400 ft.
 (N.R.C.). It occurs on shingle at Dunster. First records:
 5, Badgworthy (1913); 6, Cricket St. Thomas (1914).

Form minor Harm., is also common (N.R.C., B.M.S.).

Var. rugosa (Tayl.) Crombie, has been noted without definite locality in v.c. 5. In v.c. 6 it occurs on birch, Kingsettle Hill (N.R.C.). On beech, in the same locality, its form panniformis Crombie, occurs (1915).

P. tiliacea (Hoff.) Ach. On tree-trunks. Rare.

5. Castle Neroche (1912) and Milverton (N.R.C.).

6. Recorded from Beckington (P.) but the specimen is a somewhat atypical one of *P. scortea*.

Var. carporhizans Tayl. On trees.

5. Dunster, on the hill by the tower, on oaks, 1799 (Sowerby's herbarium, B.M.).

P. scortea Ach. On trees and pales, sometimes on rocks.

5. On slate roof, Weston Farm near Chard (1920).

6. Beckington (leg. P. 1869).

P. dubia (Wulf.) Schaer. (P. borreri Turn.). Common throughout the county on trees, occasionally on pales, rarely on rock (Blue Anchor) 50–800 ft. First records: 5, Broomfield (1913); 6, Lullington (leg. P. 1868).

Var. ulophylla (Ach.) Harm. On Lombardy poplar, Oake near Taunton (1927). On alder, near R. Tone, Bishop's

Hull.

P. reddenda Stirt., has been noted as occurring near Taunton (1915) but the specimen has been lost. It may possibly have belonged to P. negata Nyl. In any case the specific segregation of these plants is doubtful.

P. exasperata (Ach.) Carroll. On trunks of trees, very rarely on rock. This is given as common in the s. and w. counties of England by some authors, but it is probable that many

of the records refer to the next species.

5. On young oak at 800 ft., Grabbist Hill, Minehead (c. fr.

1923). On elder and shingle, Dunster.

P. fuliginosa (Fr.) Nyl. Common on trees, pales and rocks (usually siliceous), 0–1200 ft. First records: 5, Taunton (1912); 6, Bruton (1907).

Form aterrima Wedd. A very dark form on rock.

5. Withypool (1918); Porlock; Triscombe, Quantocks.

6. Ashton Court (1923; B.M.S.).

Var. glabratula (Lamy.) Oliv. (form denudata Cromb.).

5. Holford Combe, Quantocks (1915; N.R.C.).

6. Near Longleat (1915).

Var. laetevirens (Flot.) Nyl. Common on trees, rare on rocks. First records: 5, Curland (1914); 6, Shapwick (1915).

P. subaurifera Nyl. Common on trees, sometimes on pales, 0–1500 ft. First records: 5, Quantocks (1912); 6, Lullington (1869: Parson's specimen of P. olivacea, a species which has not been found in Somerset).

P. saxatilis (L.) Ach. Very common on trees, pales, walls, rocks, slates and tiles, 0-1700 ft. (V.C.H., W.o.S.,

B.M.S.). Form furfuracea Schaer., is also common.

Form panniformis Cromb. On rock, Oareford (1913) in v.c. 5.

Var. laevis Nyl. On oak, Hodder's Combe, Quantocks (1915).

- P. sulcata Tayl. Common on trees and rocks, 0–1600 ft. Collected at Tellisford (1868; P.) in v.c. 6 and near Taunton (1912) in v.c. 5.
- P. omphalodes (L.) Ach. On rocks and boulders. This has been recorded from Exmoor but without definite locality.

FAMILY XX. LECANORACEÆ

- Squamaria crassa (Huds.) D.C. (Lecanora cartilaginea A.L.Sm.). On rocks, soil-caps of rocks, ground or spreading over mosses, especially near the sea and in calcareous districts, 0–1000 ft. (Lich.C.S.).
 - 6. Cheddar (1875; W.J.) and Cleeve Hill (W.J., B.M.); Mendip (common); Brean Down; Berrow dunes.
- S. saxicola (Poll.) Hook. (Lecanora muralis Schaer.). On rocks, tiles, rarely pales, 0–700 ft.
 - Haygrass (1917), Bishop's Hull, Kingston, Norton Fitzwarren (on post) and Orchard Portman near Taunton; Minehead Warren. On boulders in R. Barle near Tarr Stepps. On roof, Combe St. Nicholas. On stone, Bagborough churchyard.
 - 6. Somerton (1923); Ashton Court and Wrington (B.M.S.).
- S. circinata (Pers.) Hook. (L. subimbricata A.L.Sm.). On sarsen stone, Staple Fitzpaine (1916; N.R.C., B.M.). This ultimately becomes red with caustic potash and thus comes under what Nylander named subcircinata.
- Ochrolechia tartarea (L.) Mass. On rocks and old tree-trunks.
 - 5. On tree, Northay near Chard (1921).

Var. subtartarea Nyl. = O. androgyna Arn.

- 5. Treborough (1915); Exton; Combes of Croydon Hill; Dunster; Minehead.
- 6. Penselwood (1920); Somerton.
- O. parella (L.) Mass. On rocks, sometimes on trees, rarely on pales. Common on rocks near the coast and frequent in hilly districts throughout the county. First records: 6, Vallis (1868; P.); 5, Taunton (1914).

Var. turneri (Sm.) B. de Lesd. On trunks of trees (oak, ash, elm, etc.).

5. Castle Neroche (1917); Wrantage; Halsway, Quantocks; Langford Budville; Chipstable.

6. Yatton (1924).

O. pallescens L. On tree, Horner Wood, near Porlock (1922).

Lecanora atra (Huds.) Ach. Common on rocks, walls, tiles, tree-trunks and pales, 0–900 ft. First records: 6, Walton-in-Gordano (1868; P.); 5, Taunton (1911).

L. subfusca (L.) Ach. On trunks of trees, rarely on pales. The type (f. typica Harm.) is not uncommon (N.R.C.).

 Aisholt (1908), Triscombe, Hodder's and Holford Combes, Quantocks; Stoke and Orchard Portman near Taunton; Staple Hill, Castle Neroche, Combe St. Nicholas and Bewley Down, Blackdowns.

6. Penselwood (1920); Frome.

Form geographica Harm. Thallus intersected with dark lines.

5. Aisholt (1915; N.R.C.) and Merridge near Taunton; Castle Neroche.

Var. glabrata Ach. has been noted at Porlock (on birch) and at Orchard Portman near Taunton (N.R.C.). Its form argentata Ach. occurs on pales at Orchard Portman and on elm at Triscombe, Quantocks.

Var. allophana Ach. On trees, sometimes on pales.

5. Hopcott near Minehead (1911; Loydell); Horner (Paulson, B.M.S. 1921); Chard Common; Stoke St. Mary; Thurlbear; Hawkridge.

6. Somerton (1923).

Form parisiensis (Nyl.) Hue. On trees, often on pales.

5. Chipstable (1915); Nailsbourne and Staplegrove near Taunton; Crowcombe; Castle Neroche.

6. High Ham (1914); Middlezoy.

L. campestris (Schaer.) Nyl. Very common on rocks, chiefly calcareous. Collected from Bruton (6) in 1907 and from Taunton (5) in 1911.

Form detrita Hoff., a state with aborted or altered apothecia (N.R.C.) has been noted near Taunton. Form expansa (Ach.) Harm. and form atrata Nyl. occur on walls near

Taunton, but the latter seems to belong to L. coilocarpa, merely differing in the apothecia being somewhat convex instead of plane.

L. chlarona Cromb. Common on trees and pales. Collected from Beckington (6) in 1869 (P., det. mihi) and from Taunton (5) in 1913.

Form detrita Hoff, has been noted from Taunton.

Form geographica (Mass.) Nvl.

- 5. Stoke and Merridge near Taunton (1915; N.R.C.).
- 6. Bathampton (H., B.M.).
- L. chlarotera Nyl. On trees. Rare.

5. Combe St. Nicholas (1926); Norton Fitzwarren.

L. rugosa (Pers.) Nyl. Common on trunks of trees (W.o.S.). Collected from Beckington (6) by Parsons in 1869 and from Taunton (5) in 1908.

L. intumescens (Reb.) Krb. On trees, rarely on pales, 0-900 ft.

Form dispersa Oliv., is taken as type.

Horner (1915), Aisholt and Crock Street near Chard (N.R.C.); Stoke St. Mary; Croydon Hill combes to Dunster: Minehead: Oareford: Buckland Hill, Blackdowns.

Form geographica Wats. (J. of Bot. 1917).

Aisholt (1915) and Stoke near Taunton (N.R.C.).

- L. coilocarpa (Ach.) Nyl. On rocks (usually siliceous), walls and tiles. Frequent in v.c. 5.
 - 5. Horner near Porlock (1915) and many other localities.

6. Beckington (leg. P. 1869).

L. gangaleoides Nyl. On rocks and walls in hilly districts.

5. Horner (1913); Sticklepath near Monksilver.

L. cenisia Ach., var. atrynea (Ach.) Harm., is usually on siliceous rocks. I have recorded it from Thurlbear (on pale) in N.R.C., but have no specimen in my herbarium.

L. pallida (Schreb.) Schaer. (L. albella Ach.). On trees (oak, beech, apple, hazel, etc.) and pales, 100-1000 ft. Fairly

frequent (N.R.C.).

5. On hazel, Aisholt (1915); Staple, Orchard Portman, Norton, Dodhill and Cothelstone near Taunton; Wambrook and Staple Hill, Blackdowns; Croydon Hill combes to Dunster; Dulverton.

Form subalbella Nyl., and form peralbella Nyl. Nylander differentiated these from the type owing to differences in the reaction of the hymenial gelatine to iodine. These forms are found in both vice counties (N.R.C.) but are searcely worth distinguishing.

Form geographica mihi. Thallus intersected with dark lines.

On hazel, Aisholt (1915) in v.c. 5 (N.R.C.).

L. carpinea (L.) Wain. (L. angulosa Ach.). Common on trees (elm, willow, apple, etc.) and pales. Collected at Beckington (6, P. 1869) and near Taunton (5, 1911).

Form cinerella (Flk.) Harm. On apple tree, Stoke near Taunton.

- L. sordida (Pers.) Th.Fr. (L. glaucoma Ach.). Form cinereopruinosa Leight., is considered as type. On siliceous rocks.
 - 5. Oare; Selworthy.

Form complanata (Leight.) A.L.Sm., was collected in small quantity on a wall at Merridge near Bridgwater (N.R.C.).

L. galactina Ach. Very common on calcareous rocks and walls, occasionally invading neighbouring siliceous rock, sometimes on brick walls and tiles. First records: 6, Bathampton (H., B.M.); 5, Taunton (1908, Lich.C.S.).

Form atrynella B. de Lesd.

5. Staplegrove near Taunton.

Form monstrosula Lamy.

5. Near Taunton.

Form verrucosa Leight., seems very near to form galactinella (Nyl.) Harm.

- On calcareous wall, Stoke St. Mary and Norton Fitzwarren.
- 6. On limestone rock, Sand Bay near Weston; Purn Hill; Somerton.

Var. dissipata (Nyl.) B. de Lesd. Bishop's Hull near Taunton (N.R.C.).

Var. dispersa (Pers.) Ach. On limestone walls.

- 5. Not uncommon near Taunton (1916; N.R.C.); Bagborough churchyard.
- 6. Cleeve Hill (1917); Clevedon.
- L. urbana Nyl. On mortared walls and tiles. Rare.

5. On tiles, Kingston (N.R.C.). On wall, West Monkton.

6. On tiles, Biddisham (1917). On wall, Milton near Wells (Corder).

L. argophilis (Wahl.) Ach. There is a specimen in the B.M., collected by Joshua from Cleeve Hill (6), but it is scarcely a typical one.

L. sulphurea (Hoff.) Ach. On rocks and walls, usually siliceous.
6. A rather damaged specimen from Parsons's herbarium,

collected at Walton in 1869, probably belongs here.

L. polytropa (Ehrh.) Schaer. On siliceous rocks. Common, especially in the hilly districts, 0-1600 ft. First records:
5, Quantocks (1913); 6, Shapwick (1916). The apothecia are often smaller than in N. England or Welsh plants.

Form illusoria (Ach.) Harm. (form acrustacea Schaer.).

5. Quantocks: Huish Champflower.

L. expallens (Pers.) Ach. Very common on trees, especially conifers, and pales, 0-1600 ft. Var. lutescens (D.C.) Nyl. is also common. Both collected in 1913 at Broomfield (5) and High Ham (6).

L. symmicta Ach. Common on trees and pales. Recorded from Quantocks, etc. (5) and High Ham (6) in N.R.C.

L. effusa (Pers.) Ach. On old palings, Bradon Forest (W.J. 1876, B.M.). This is from Somerset sec. B.M. 1918.

L. symmictera Nyl. On pales and tree-trunks.

5. Nailsbourne (1916) and West Hatch near Taunton; Porlock.

6. On pales, Edington Burtle (1916).

L. varia (Ehrh.) Ach. On pales and trunks of trees (especially pine, birch and beech), sometimes on ling (N.R.C.). First records: 5, Taunton (1911); 6, Kingsettle Hill (1915).

Form pleorytis Ach., has been noted, without definite locality,

in v.c. 5, and at Edington Burtle in v.c. 6.

L. farinaria Borr. (L. conizaea Nyl.). Common on pales and trees (N.R.C.). First records: 5, Minehead (1911; Loydell); 6, Sandford Hill (1920).

Var. conizaeoides (Nyl.) A.L.Sm.

5. Wembdon (leg. Corder, 1920).

L. hageni Ach. Common on trees and pales. First records: 6, Wellow near Bath (H., B.M.); 5, Crowcombe (N.R.C.).

B. confervoides Kremp. On shingle.

5. Bossington near Porlock (1913; N.R.C.); Greenaleigh Point (K., B.M.S. 1921).

B. colludens (Nyl.) Tuck., occurs in Dorset and I think that I have seen it near Blue Anchor in v.c. 5.

FAMILY XVI. RAMALINACEÆ

Ramalina calicaris (L.) Fr. Common on trees. First records: 6, Red Lynch (1877; P.). 5, Taunton (1908; W.o.S.). 0-1300 ft.

Var. subampliata Nyl. Adcombe near Taunton (1924).

R. fraxinea (I.) Ach. Common on trees (W.o.S., B.M.S.). Var. taeniformis Ach. is taken as the type. First records: 6, near Frome (1869; P.); 5, Taunton (1908).

Var. ampliata Ach. On old trees (oak, ash, elm, apple,

lime).

5. Haydon (1908), Norton, Stoke, Staple, Orchard Portman, Trull and Poundsford near Taunton (W.o.S., N.R.C.).

6. Bruton (1907); Somerton; Shapwick.

Form monophylla Cromb. has been noted on elm in 5, Norton (N.R.C.) and in 6 at Somerton.

Var. calicariformis Nyl. On trees in oak-ash woods.

- 5. Pickeridge near Taunton (1913; N.R.C., B.M.); Orchard Portman; Combe St. Nicholas.
- R. fastigiata (Pers.) Ach. Very common on trees and occasionally on pales, 0–1600 ft. (W.o.S., B.M.S.). Collected in 1869 from Standerwick (6) by Dr. Parsons and in 1908 from Taunton (5).

Form minutula (Ach.) Cromb. Usually on pales.

5. On trees, Poundsford, Norton and Oake near Taunton.

Var. nervosa Nyl. has been noted from Taunton.

R. farinacea (L.) Ach. Common on trees, 0–1600 ft. Collected in 1869 near Frome (6) by Dr. Parsons and in 1908 from Taunton (5).

Form pendulina Ach. Pendulous on trees.

5. On beech, Exford (1915; N.R.C.), and Bewley Down. Buncombe Wood near Taunton; Langford Budville.

6. Copley Wood, Somerton (1923).

Form phalerata Ach. Usually on pales.

5. Poundsford near Taunton (1923).

6. On pale, Cole (1906; N.R.C.). On old oak, Shapwick.

R. pollinaria (Westr.) Ach. On trees.

- 5. Frequent in Taunton district (1908; W.o.S., N.R.C.); Staple Hill; Combe St. Nicholas; Watchet; Wembdon near Bridgwater (Corder).
- 6. Vallis (1869; P.); Frome; Christon; Somerton.

Form humilis (Ach.) Cromb. On walls, trees and pales.

- 5. On brick walls, Taunton (1908; L.E.R., N.R.C., B.M.) and Cheddon Fitzpaine. On flint of barn wall, Combe St. Nicholas. On oak, Staple Fitzpaine. On poplar and on pales, Pitminster.
- 6. Somerton (1923).

Form intermedians Oliv.

5. On oak, Staple Fitzpaine (1920).

Form cucullata Harm. On brick wall, Taunton (1908).

- R. evernioides Nyl. Infrequent on trees.
 - 5. Williton (1928).
 - 6. Somerton (1928).
- R. scopulorum (Retz.) Ach. (R. siliquosus A.L.Sm.). On rocks and boulders near the sea.
 - 5. Minehead, with forms tuberculosa Oliv., and cornuata (Ach.) Harm. (1911).

Var. incrassata Nyl.

5. Minehead (1908; N.R.C.).

- R. cuspidata (Ach.) Nyl. Included in R. siliquosus in B.M., 1918. On maritime rocks and boulders; rarely on hills at a distance from the sea.
 - 5. Minehead (1908); Selworthy; Volis Hill near Taunton. Form *rugosa* Oliv.
 - 5. Minehead; near Selworthy church.

Form pygmaea (Wedd.) Harm. (f. minor Nyl.). Minehead (N.R.C.).

- R. subfarinacea Nyl. On rocks, very rarely on trees.
 - 5. On wall, Minehead (1908).
- R. polymorpha Ach. On shingle. Very rare.
 - 5. Blue Anchor (1922); Dunster.

B. confervoides Kremp. On shingle.

5. Bossington near Porlock (1913; N.R.C.); Greenaleigh Point (K., B.M.S. 1921).

B. colludens (Nyl.) Tuck., occurs in Dorset and I think that I have seen it near Blue Anchor in v.c. 5.

FAMILY XVI. RAMALINACEÆ

Ramalina calicaris (L.) Fr. Common on trees. First records: 6, Red Lynch (1877; P.). 5, Taunton (1908; W.o.S.). 0-1300 ft.

Var. subampliata Nyl. Adcombe near Taunton (1924).

R. fraxinea (I.) Ach. Common on trees (W.o.S., B.M.S.). Var. taeniformis Ach. is taken as the type. First records: 6, near Frome (1869; P.); 5, Taunton (1908).

Var. ampliata Ach. On old trees (oak, ash, elm, apple,

lime).

5. Haydon (1908), Norton, Stoke, Staple, Orchard Portman, Trull and Poundsford near Taunton (W.o.S., N.R.C.).

6. Bruton (1907); Somerton; Shapwick.

Form monophylla Cromb. has been noted on elm in 5, Norton (N.R.C.) and in 6 at Somerton.

Var. calicariformis Nyl. On trees in oak-ash woods.

- 5. Pickeridge near Taunton (1913; N.R.C., B.M.); Orchard Portman; Combe St. Nicholas.
- R. fastigiata (Pers.) Ach. Very common on trees and occasionally on pales, 0–1600 ft. (W.o.S., B.M.S.). Collected in 1869 from Standerwick (6) by Dr. Parsons and in 1908 from Taunton (5).

Form minutula (Ach.) Cromb. Usually on pales.

5. On trees, Poundsford, Norton and Oake near Taunton.

Var. nervosa Nyl. has been noted from Taunton.

R. farinacea (L.) Ach. Common on trees, 0–1600 ft. Collected in 1869 near Frome (6) by Dr. Parsons and in 1908 from Taunton (5).

Form pendulina Ach. Pendulous on trees.

5. On beech, Exford (1915; N.R.C.), and Bewley Down. Buncombe Wood near Taunton; Langford Budville.

6. Copley Wood, Somerton (1923).

Form phalerata Ach. Usually on pales.

5. Poundsford near Taunton (1923).

6. On pale, Cole (1906; N.R.C.). On old oak, Shapwick.

R. pollinaria (Westr.) Ach. On trees.

- 5. Frequent in Taunton district (1908; W.o.S., N.R.C.); Staple Hill; Combe St. Nicholas; Watchet; Wembdon near Bridgwater (Corder).
- 6. Vallis (1869; P.); Frome; Christon; Somerton.

Form humilis (Ach.) Cromb. On walls, trees and pales.

- 5. On brick walls, Taunton (1908; L.E.R., N.R.C., B.M.) and Cheddon Fitzpaine. On flint of barn wall, Combe St. Nicholas. On oak, Staple Fitzpaine. On poplar and on pales, Pitminster.
- 6. Somerton (1923).

Form intermedians Oliv.

5. On oak, Staple Fitzpaine (1920).

Form cucullata Harm. On brick wall, Taunton (1908).

- R. evernioides Nyl. Infrequent on trees.
 - 5. Williton (1928).
 - 6. Somerton (1928).
- R. scopulorum (Retz.) Ach. (R. siliquosus A.L.Sm.). On rocks and boulders near the sea.
 - 5. Minehead, with forms tuberculosa Oliv., and cornuata (Ach.) Harm. (1911).

Var. incrassata Nyl.

- 5. Minehead (1908; N.R.C.).
- R. cuspidata (Ach.) Nyl. Included in R. siliquosus in B.M., 1918. On maritime rocks and boulders; rarely on hills at a distance from the sea.
 - 5. Minehead (1908); Selworthy; Volis Hill near Taunton. Form *rugosa* Oliv.
 - 5. Minehead; near Selworthy church.

Form pygmaea (Wedd.) Harm. (f. minor Nyl.). Minehead (N.R.C.).

- R. subfarinacea Nyl. On rocks, very rarely on trees.
 - 5. On wall, Minehead (1908).
- R. polymorpha Ach. On shingle. Very rare.
 - 5. Blue Anchor (1922); Dunster.

FAMILY XVII. LECANIACEÆ

Solenopsora candicans (Dicks.) Zahl. (Placolecania c. Zahl.; Diphratora c. Jatta.). On calcareous rocks and walls. Frequent.

5. Taunton (1915) and Forde Abbey (N.C.R.); Stoke St. Mary; Bishop's Hull; Oake; Wiveliscombe; Pucking-

ton; Wambrook; Whitestaunton; Wellington.

6. Claverton Down near Bath (1809; E.F.); Wells, Cleeve Hill (W.J.), Weston (Hb.R.) and Walton-in-Gordano (B.M.); Mells (P.); Uphill; Brean Down; Bleadon; Loxton; Shipham; Mendip (N.R.C.); Clevedon; Yatton; Wrington (B.M.S.); Somerton.

Lecania erysibe (Ach.) Mudd. On rocks, occasionally on trees (on elm, Higher Thurlbear) or pales. Common throughout the county (Lich.C.S.; J. of Bot. 1924). First records:

6, Bathampton (H., B.M.); 5, Taunton (1912).

Form crenulata B. de Lesd. Curland (1922), in v.c. 5.

Var. cinereofusca Mudd.

5. On calciferous sandstone wall, Langford near Taunton (1914).

6. On carboniferous limestone, Brean Down (1914 ; N.R.C.). Var. subcaesia Nyl.

5. On white lias wall, Thurlbear (1922).

Var. rabenhorstii (Hepp.) has apothecia which become convex and immarginate and is synonymous with Biatora proteiformis Mass., sec. Harmand. Crombie in B.M., 1894, records proteiformis from Bathampton, but the specimen in the B.M. from that locality (leg. H.) is the type. He also says that the spores are smaller and narrower (2–4 micromillimetres) than in the type, and this statement is borne out by an examination of the plants found on limestone rocks near Taunton.

5. White Lias walls near Taunton (1915; N.R.C.); Halsway and Crowcombe; Chard.

Var. sincerior (Nyl.) B. de Lesd.

5. Cheddon Fitzpaine (1928).

6. Clevedon (1923).

- L. albariella (Nyl.) Mull. On calcareous rocks and walls.
 - 5. Orchard Portman (1918) and Hele near Taunton; Lilstock.
 - 6. Burnham (1927).

Form lecideina Nyl.

- 5. Kilton (1918); Combe St. Nicholas.
- L. prosechoides (Nyl.) Oliv. On maritime rocks.
 - 5. On sea face of cliff near Greenaleigh Point (1920).
 - 6. Clevedon (1924); Sand Bay.
- L. prosechoidiza (Nyl.) A.L.Sm. On maritime rocks. Very rare. Minehead (5) and Steep Holm (6; J. of Bot. 1924).
- L. dubitans (Nyl.) A.L.Sm. (L. dimera Th.Fr.). Very rare.
 - 5. On wood of hut, Withypool (1918).
- L. syringea (Ach.) Th.Fr. On trees and pales. Rare.
 - 5. On pales with form *minuta* (B. de Lesd.), Cutley Farm near Taunton (1922). On elder, Clatworthy, Minehead and Watchet. On trees, Nailsbourne near Taunton, Langford Heathfield (f. *minuta*) and Tolland.
 - 6. On trees, Somerton (1923).
- Thalloidima coeruleo-nigricans (Light.) Th.Fr. On calcareous rocks, occasionally on calcareous soil (Lich.C.S.).
 - 6. Bathford (1856; B., B.M.); Cleeve Hill and Yatton (W.J., B.M.); Berrow (S.D.); Uphill; Goblin Combe.

Form glebosa Cromb.

- 6. Yatton (1877; W.J.).
- T. candidum (Web.) Mass. On calcareous rocks and soil.
 - 6. Cleeve Hill (1877; W.J., B.M.); Yatton and Goblin Combe (B.M.S.).
- Biatorina littorella (Nyl.) A.L.Sm. On hard rocks. Very rare.
 - Ruborough Camp, Broomfield (1914; N.R.C., B.M.);
 North Hill, Minehead (K., B.M.S., 1921).
- B. pilularis Krb. On mossy trunks of trees.
 - 5. Horner Wood (K., B.M.S., 1921).
- B. graniformis (Hag.) A.L.Sm. (B. ehrhartiana Mudd.). On pales, occasionally on tree-trunks.
 - 5. On oak, Bagborough.
 - 6. On old pine, Shapwick (1916; N.R.C.); Weston-in-Gordano.

- B. cyrtella (Ach.) Th.Fr. (Lecania c. Oliv.). On the bark of elder.
 - 5. Broomfield (1920); Combe St. Nicholas; Ely Wood near Chard.
- B. griffithii (Sm.) Mass. [B. tricolor (With.) of many authors]. On trees, usually those with smoothish bark.
 - On oak, Broomfield (1916). On willow, Buckland St. Mary. Cutley and Norton near Taunton; Perriton Combe near Minehead; Langford Heathfield; Williton.
 - 6. Wrington Warren (1923; B.M.S.); Copley Wood, Somerton. Kingsdon.
- B. fallax (Hepp.) A.L.Sm. On elm bark. This plant was recorded by Larbalestier from Leigh Wood (6) in 1865, but there is no specimen in the B.M. A plant collected from Whitford above Corfe (5) in 1927 is probably this, but the material is insufficient to decide.
- B. globulosa (Flk.) Krb. is recorded from trees at Horner near Porlock (Paulson, B.M.S. 1921).
- B. lightfootii (Sm.) Mudd. On trees, especially birch.
 - 5. Chard Common (1914); Castle Neroche; Broomfield (beech) and Holford Combe (young oak), Quantocks; Dunster (ash).
 - 6. Berkley Hill (1869) and Orchardleigh (P.); Shapwick (1916).
 - Var. commutata (Ach.) Mudd. On the trunks of old trees.
 - 5. Chard Common (1913; N.R.C.).
 - 6. Shapwick (1916).
- B. synothea (Ach.) Krb. On old pales and tree-stumps, 0–1200 ft.
 - 5. Norton (1916), Cushuish, Cheddon and Kingston near Taunton; Crowcombe; near Bagborough Plantation.
 - 6. On pales, Ashcott (1924).
 - Forms fusca B. de Lesd. and sublivescens Nyl. have been noted from old stumps, Crowcombe.
 - Var. subnigrata Nyl. On rocks. A specimen, collected by Joshua in 1876 from Bathampton Downs and determined by Crombie, is in the B.M.
- B. atropurpurea (Schaer.) Mass. On trunks of old trees, rarely on the bryophytes covering the trunks.

5. Wood above Pitminster (1916; N.R.C.); Horner Wood (1921; K., B.M.S.). The apothecia of both these plants have the hymenial gelatine persistently blue with iodine. They therefore belong to *Lecidea atropurpurascens* Nyl., which is scarcely worth distinguishing even as a form.

B. lenticularis (Ach.) Krb. Common on rocks, especially calcareous ones (Lich.C.S.), 0–1000 ft. First records: 6,

Bathampton (H., B.M.); 5, Quantoxhead (1915).

Form acrustacea (Hepp.). On Lynton slate wall, Shore-ditch near Taunton (1918).

Form nigricans Arnold. Usually on calcareous rocks.

5. Near Roadwater (1919); Kingston. On shingle near Minehead.

6. Bathampton (H., det. Crombie, B.M.); Goblin Combe; Cheddar; Ebbor Gorge; Pen Hill (leg. Corder).

Form oxydata Leight. (v. erubescens Krb.), occurs on a stone near a stream at Hatch Green (5). The coloration in this case is probably due to intermixed *Trentepohlia aurea*. A doubtful specimen was collected at Harptree Combe (6).

Var. chloropoliza (Nyl.) A.L.Sm.

6. Clevedon (1924).

B. prasina (Fr.) Syd. This is usually found on trees but a plant from a bare bank at Vexford near Stogumber (5) agrees (L.N. IV).

B. epiblastematica (Wallr.) A.L.Sm. (Scutula e. Rehm; S.

wallrothii Tul.).

6. On the thallus of *Peltigera rufescens*, Cleeve Combe (1923, Darbishire, B.M.S.).

B. episema (Nyl.) A.L.Sm. Parasitic on crustaceous lichens.5. On Lecanora coilocarpa, Cheddon Fitzpaine (1915).

6. On Aspicilia calcarea, Yatton (1875; W.J., B.M.).

Catillaria chalybeia (Borr.) Lettau. On siliceous rocks and stones.

5. Volis Hill (1917); Merridge and Cothelstone Beacon, Quantocks; Blue Anchor.

6. Pen Hill near Wells (1921; leg. Corder).

Microphiale diluta (Pers.) Zahl. (Biatorina d. Th.Fr.; Gyalecta d. Wain.). Rare.

5. On firs, Castle Neroche (1917); Whitford, above Corfe.

FAMILY XVIII. USNEACEÆ

Usnea florida (L.) Web. Common on the trunks and branches of trees, rarely on ling, rocks or sand, 0-1500 ft (W.o.S., B.S.M.). Collected from Taunton (5) in 1908 and from Bruton (6) in 1906.

Forms papulata Harm., annulata Arn., and soredifera Arn.,

have been noted from the Exe Valley.

Var. hirta (L.) Ach. Common. Habitat and first records

as the type.

U. plicata (L.) Web. (U. ceratina Ach.). Common on trees, rarely on rocks. First records: 5, Kingston (1911); 6, Bruton (1907).

Form annulata B. de Lesd. has been noted at Treborough (5).

Form scabrosa Ach.. Frequent in 5.

Form ferruginascens Crombie has been noted at Whites-

taunton (5).

U. rubiginea (Mich.) Herre, recorded in N.R.C., does not appear to be worth a specific segregation, its affinity with red forms of U. florida (especially the var. hirta) being much too close. Plants having a red colour have been noted on the Blackdowns, Brendons and at Exton in v.c. 5 and near Longleat in v.c. 6. Most of these are pendulous and must be considered as red forms of *U. plicata* Web.

 $U.\ barbata$ (Huds.) Web. $=U.\ dasypoga$ (Ach.) Nyl. On treetrunks.

- 5. Exton (1915); Treborough; Culmhead, Bewley Down and Castle Neroche, Blackdowns.
- 6. Laverton (sec. P.). Near Longleat (1915); Penselwood. Form scabrata Nyl. On oak, near Brendon Hill (5) and near Longleat (6).

Var. pendula (Schaer.) Howe. (U. plicata Ach.).

- 5. Lev Hill, Porlock (1915); Exford, Exton, Holford Combe, Quantocks.
- 6. Stourhead to Longleat (1915).

Form scabrata Nyl. is coextensive.

U. articulata (L.) Hoff. On old trees. Rare.

5. On oak, Exton (1915; N.R.C.), Whitestaunton and Culmhead. On apple and elm, Northay near Chard.

6. Wood near Gare Hill (1915; N.R.C.).

Evernia prunastri (L.) Ach. Very common on trees, shrubs and heather (on ling, Blackdowns in v.c. 5), occasionally on pales, rarely on rocks or ground, 0–1700 ft. Form munda, which is without soredia, is taken as the type. First records: Taunton (1908; W.o.S.) for 5 and Frome (P.) for 6.

Form sorediifera Ach. Common (5, Puckington, 1915; 6, Somerton, 1923).

Var. nana Lamy. On rocks, Blue Anchor in v.c. 5 (1923; L.N. II).

FAMILY XIX. PARMELIACEÆ

Cetraria aculeata (Schreb.) Fr. (var. campestris Schaer., is taken as type). On the ground, soil-capped rocks and among mosses on heathy ground, usually on the hills (600–1700 ft.) but descending to sea-level on Minehead Warren. Frequent.

5. Exmoor (1912); Blackdowns; Quantocks; Croydon

Hill; Haddon Hill; Minehead and Dunster.

6. On siliceous heaths of Mendip.

Form subnigrescens Harm.

5. Blackdowns (1915; N.R.C.); Quantocks.

Form edentula Ach.

5. Leigh Hill and Staple Hill, Blackdowns (1915; N.R.C.); Dunkery; Treborough.

Form acanthella (Ach.) Nyl.

5. Leigh Hill and Staple Hill, Blackdowns (1915; N.R.C.). Var. hispida (Light.) Cromb. (Lichen muricatus Ach.).

5. On rocks, Cow Castle, Simonsbath (1916).

Platysma glaucum (L.) Nyl. On trees, especially oak, occasionally on rocks or on the ground. Frequent in the hilly districts.

5. Quantocks (1911); Blackdowns; Brendons; Croydon Hill; Exmoor (common).

6. Kingsettle Hill (on birch, 1915); Penselwood; Mendip. Form sorediosum Oliv. Probably coextensive with the type but with definite localities from v.c. 5 only.

B. confervoides Kremp. On shingle.

5. Bossington near Porlock (1913; N.R.C.); Greenaleigh Point (K., B.M.S. 1921).

B. colludens (Nyl.) Tuck., occurs in Dorset and I think that I have seen it near Blue Anchor in v.c. 5.

FAMILY XVI. RAMALINACEÆ

Ramalina calicaris (L.) Fr. Common on trees. First records: 6, Red Lynch (1877; P.). 5, Taunton (1908; W.o.S.). 0-1300 ft.

Var. subampliata Nyl. Adcombe near Taunton (1924).

R. fraxinea (I.) Ach. Common on trees (W.o.S., B.M.S.). Var. taeniformis Ach. is taken as the type. First records: 6, near Frome (1869; P.); 5, Taunton (1908).

Var. ampliata Ach. On old trees (oak, ash, elm, apple, lime).

5. Haydon (1908), Norton, Stoke, Staple, Orchard Portman, Trull and Poundsford near Taunton (W.o.S., N.R.C.).

6. Bruton (1907); Somerton; Shapwick.

Form monophylla Cromb. has been noted on elm in 5, Norton (N.R.C.) and in 6 at Somerton.

Var. calicariformis Nyl. On trees in oak-ash woods.

5. Pickeridge near Taunton (1913; N.R.C., B.M.); Orchard Portman; Combe St. Nicholas.

R. fastigiata (Pers.) Ach. Very common on trees and occasionally on pales, 0–1600 ft. (W.o.S., B.M.S.). Collected in 1869 from Standerwick (6) by Dr. Parsons and in 1908 from Taunton (5).

Form minutula (Ach.) Cromb. Usually on pales.

5. On trees, Poundsford, Norton and Oake near Taunton.

Var. nervosa Nyl. has been noted from Taunton.

R. farinacea (L.) Ach. Common on trees, 0–1600 ft. Collected in 1869 near Frome (6) by Dr. Parsons and in 1908 from Taunton (5).

Form pendulina Ach. Pendulous on trees.

5. On beech, Exford (1915; N.R.C.), and Bewley Down. Buncombe Wood near Taunton; Langford Budville.

6. Copley Wood, Somerton (1923).

Form phalerata Ach. Usually on pales.

5. Poundsford near Taunton (1923).

6. On pale, Cole (1906; N.R.C.). On old oak, Shapwick.

R. pollinaria (Westr.) Ach. On trees.

- 5. Frequent in Taunton district (1908; W.o.S., N.R.C.); Staple Hill; Combe St. Nicholas; Watchet; Wembdon near Bridgwater (Corder).
- 6. Vallis (1869; P.); Frome; Christon; Somerton.

Form humilis (Ach.) Cromb. On walls, trees and pales.

- 5. On brick walls, Taunton (1908; L.E.R., N.R.C., B.M.) and Cheddon Fitzpaine. On flint of barn wall, Combe St. Nicholas. On oak, Staple Fitzpaine. On poplar and on pales, Pitminster.
- 6. Somerton (1923).

Form intermedians Oliv.

5. On oak, Staple Fitzpaine (1920).

Form cucullata Harm. On brick wall, Taunton (1908).

- R. evernioides Nyl. Infrequent on trees.
 - 5. Williton (1928).
 - 6. Somerton (1928).
- R. scopulorum (Retz.) Ach. (R. siliquosus A.L.Sm.). On rocks and boulders near the sea.
 - 5. Minehead, with forms tuberculosa Oliv., and cornuata (Ach.) Harm. (1911).

Var. incrassata Nyl.

- 5. Minehead (1908; N.R.C.).
- R. cuspidata (Ach.) Nyl. Included in R. siliquosus in B.M., 1918. On maritime rocks and boulders; rarely on hills at a distance from the sea.
 - 5. Minehead (1908); Selworthy; Volis Hill near Taunton. Form *rugosa* Oliv.
 - 5. Minehead; near Selworthy church.

Form pygmaea (Wedd.) Harm. (f. minor Nyl.). Minehead (N.R.C.).

- R. subfarinacea Nyl. On rocks, very rarely on trees.
 - 5. On wall, Minehead (1908).
- R. polymorpha Ach. On shingle. Very rare.
 - 5. Blue Anchor (1922); Dunster.

FAMILY XVII. LECANIACEÆ

Solenopsora candicans (Dicks.) Zahl. (Placolecania c. Zahl.; Diphratora c. Jatta.). On calcareous rocks and walls. Frequent.

5. Taunton (1915) and Forde Abbey (N.C.R.); Stoke St. Mary; Bishop's Hull; Oake; Wiveliscombe; Pucking-

ton; Wambrook; Whitestaunton; Wellington.

6. Claverton Down near Bath (1809; E.F.); Wells, Cleeve Hill (W.J.), Weston (Hb.R.) and Walton-in-Gordano (B.M.); Mells (P.); Uphill; Brean Down; Bleadon; Loxton; Shipham; Mendip (N.R.C.); Clevedon; Yatton; Wrington (B.M.S.); Somerton.

Lecania erysibe (Ach.) Mudd. On rocks, occasionally on trees (on elm, Higher Thurlbear) or pales. Common throughout the county (Lich.C.S.; J. of Bot. 1924). First records:

6, Bathampton (H., B.M.); 5, Taunton (1912).

Form crenulata B. de Lesd. Curland (1922), in v.c. 5.

Var. cinereofusca Mudd.

5. On calciferous sandstone wall, Langford near Taunton (1914).

6. On carboniferous limestone, Brean Down (1914 ; N.R.C.). Var. subcaesia Nyl.

5. On white lias wall, Thurlbear (1922).

Var. rabenhorstii (Hepp.) has apothecia which become convex and immarginate and is synonymous with Biatora proteiformis Mass., sec. Harmand. Crombie in B.M., 1894, records proteiformis from Bathampton, but the specimen in the B.M. from that locality (leg. H.) is the type. He also says that the spores are smaller and narrower (2–4 micromillimetres) than in the type, and this statement is borne out by an examination of the plants found on limestone rocks near Taunton.

5. White Lias walls near Taunton (1915; N.R.C.); Halsway and Crowcombe; Chard.

Var. sincerior (Nyl.) B. de Lesd.

5. Cheddon Fitzpaine (1928).

6. Clevedon (1923).

- L. albariella (Nyl.) Mull. On calcareous rocks and walls.
 - 5. Orchard Portman (1918) and Hele near Taunton; Lilstock.
 - 6. Burnham (1927).

Form lecideina Nyl.

- 5. Kilton (1918); Combe St. Nicholas.
- L. prosechoides (Nyl.) Oliv. On maritime rocks.
 - 5. On sea face of cliff near Greenaleigh Point (1920).
 - 6. Clevedon (1924); Sand Bay.
- L. prosechoidiza (Nyl.) A.L.Sm. On maritime rocks. Very rare. Minehead (5) and Steep Holm (6; J. of Bot. 1924).
- L. dubitans (Nyl.) A.L.Sm. (L. dimera Th.Fr.). Very rare.
 - 5. On wood of hut, Withypool (1918).
- L. syringea (Ach.) Th.Fr. On trees and pales. Rare.
 - 5. On pales with form *minuta* (B. de Lesd.), Cutley Farm near Taunton (1922). On elder, Clatworthy, Minehead and Watchet. On trees, Nailsbourne near Taunton, Langford Heathfield (f. *minuta*) and Tolland.
 - 6. On trees, Somerton (1923).
- Thalloidima coeruleo-nigricans (Light.) Th.Fr. On calcareous rocks, occasionally on calcareous soil (Lich.C.S.).
 - 6. Bathford (1856; B., B.M.); Cleeve Hill and Yatton (W.J., B.M.); Berrow (S.D.); Uphill; Goblin Combe.

Form glebosa Cromb.

- 6. Yatton (1877; W.J.).
- T. candidum (Web.) Mass. On calcareous rocks and soil.
 - 6. Cleeve Hill (1877; W.J., B.M.); Yatton and Goblin Combe (B.M.S.).
- Biatorina littorella (Nyl.) A.L.Sm. On hard rocks. Very rare.
 - Ruborough Camp, Broomfield (1914; N.R.C., B.M.);
 North Hill, Minehead (K., B.M.S., 1921).
- B. pilularis Krb. On mossy trunks of trees.
 - 5. Horner Wood (K., B.M.S., 1921).
- B. graniformis (Hag.) A.L.Sm. (B. ehrhartiana Mudd.). On pales, occasionally on tree-trunks.
 - 5. On oak, Bagborough.
 - 6. On old pine, Shapwick (1916; N.R.C.); Weston-in-Gordano.

- B. cyrtella (Ach.) Th.Fr. (Lecania c. Oliv.). On the bark of elder.
 - 5. Broomfield (1920); Combe St. Nicholas; Ely Wood near Chard.
- B. griffithii (Sm.) Mass. [B. tricolor (With.) of many authors]. On trees, usually those with smoothish bark.
 - On oak, Broomfield (1916). On willow, Buckland St. Mary. Cutley and Norton near Taunton; Perriton Combe near Minehead; Langford Heathfield; Williton.
 - 6. Wrington Warren (1923; B.M.S.); Copley Wood, Somerton. Kingsdon.
- B. fallax (Hepp.) A.L.Sm. On elm bark. This plant was recorded by Larbalestier from Leigh Wood (6) in 1865, but there is no specimen in the B.M. A plant collected from Whitford above Corfe (5) in 1927 is probably this, but the material is insufficient to decide.
- B. globulosa (Flk.) Krb. is recorded from trees at Horner near Porlock (Paulson, B.M.S. 1921).
- B. lightfootii (Sm.) Mudd. On trees, especially birch.
 - 5. Chard Common (1914); Castle Neroche; Broomfield (beech) and Holford Combe (young oak), Quantocks; Dunster (ash).
 - 6. Berkley Hill (1869) and Orchardleigh (P.); Shapwick (1916).
 - Var. commutata (Ach.) Mudd. On the trunks of old trees.
 - 5. Chard Common (1913; N.R.C.).
 - 6. Shapwick (1916).
- B. synothea (Ach.) Krb. On old pales and tree-stumps, 0–1200 ft.
 - 5. Norton (1916), Cushuish, Cheddon and Kingston near Taunton; Crowcombe; near Bagborough Plantation.
 - 6. On pales, Ashcott (1924).
 - Forms fusca B. de Lesd. and sublivescens Nyl. have been noted from old stumps, Crowcombe.
 - Var. subnigrata Nyl. On rocks. A specimen, collected by Joshua in 1876 from Bathampton Downs and determined by Crombie, is in the B.M.
- B. atropurpurea (Schaer.) Mass. On trunks of old trees, rarely on the bryophytes covering the trunks.

5. Wood above Pitminster (1916; N.R.C.); Horner Wood (1921; K., B.M.S.). The apothecia of both these plants have the hymenial gelatine persistently blue with iodine. They therefore belong to *Lecidea atropurpurascens* Nyl., which is scarcely worth distinguishing even as a form.

B. lenticularis (Ach.) Krb. Common on rocks, especially calcareous ones (Lich.C.S.), 0–1000 ft. First records: 6,

Bathampton (H., B.M.); 5, Quantoxhead (1915).

Form acrustacea (Hepp.). On Lynton slate wall, Shore-ditch near Taunton (1918).

Form nigricans Arnold. Usually on calcareous rocks.

5. Near Roadwater (1919); Kingston. On shingle near Minehead.

6. Bathampton (H., det. Crombie, B.M.); Goblin Combe; Cheddar; Ebbor Gorge; Pen Hill (leg. Corder).

Form oxydata Leight. (v. erubescens Krb.), occurs on a stone near a stream at Hatch Green (5). The coloration in this case is probably due to intermixed *Trentepohlia aurea*. A doubtful specimen was collected at Harptree Combe (6).

Var. chloropoliza (Nyl.) A.L.Sm.

6. Clevedon (1924).

B. prasina (Fr.) Syd. This is usually found on trees but a plant from a bare bank at Vexford near Stogumber (5) agrees (L.N. IV).

B. epiblastematica (Wallr.) A.L.Sm. (Scutula e. Rehm; S.

wallrothii Tul.).

6. On the thallus of *Peltigera rufescens*, Cleeve Combe (1923, Darbishire, B.M.S.).

B. episema (Nyl.) A.L.Sm. Parasitic on crustaceous lichens.5. On Lecanora coilocarpa, Cheddon Fitzpaine (1915).

6. On Aspicilia calcarea, Yatton (1875; W.J., B.M.).

Catillaria chalybeia (Borr.) Lettau. On siliceous rocks and stones.

5. Volis Hill (1917); Merridge and Cothelstone Beacon, Quantocks; Blue Anchor.

6. Pen Hill near Wells (1921; leg. Corder).

Microphiale diluta (Pers.) Zahl. (Biatorina d. Th.Fr.; Gyalecta d. Wain.). Rare.

5. On firs, Castle Neroche (1917); Whitford, above Corfe.

FAMILY XVIII. USNEACEÆ

Usnea florida (L.) Web. Common on the trunks and branches of trees, rarely on ling, rocks or sand, 0-1500 ft (W.o.S., B.S.M.). Collected from Taunton (5) in 1908 and from Bruton (6) in 1906.

Forms papulata Harm., annulata Arn., and soredifera Arn.,

have been noted from the Exe Valley.

Var. hirta (L.) Ach. Common. Habitat and first records

as the type.

U. plicata (L.) Web. (U. ceratina Ach.). Common on trees, rarely on rocks. First records: 5, Kingston (1911); 6, Bruton (1907).

Form annulata B. de Lesd. has been noted at Treborough (5).

Form scabrosa Ach.. Frequent in 5.

Form ferruginascens Crombie has been noted at Whites-

taunton (5).

U. rubiginea (Mich.) Herre, recorded in N.R.C., does not appear to be worth a specific segregation, its affinity with red forms of U. florida (especially the var. hirta) being much too close. Plants having a red colour have been noted on the Blackdowns, Brendons and at Exton in v.c. 5 and near Longleat in v.c. 6. Most of these are pendulous and must be considered as red forms of *U. plicata* Web.

 $U.\ barbata$ (Huds.) Web. $=U.\ dasypoga$ (Ach.) Nyl. On treetrunks.

- 5. Exton (1915); Treborough; Culmhead, Bewley Down and Castle Neroche, Blackdowns.
- 6. Laverton (sec. P.). Near Longleat (1915); Penselwood. Form scabrata Nyl. On oak, near Brendon Hill (5) and near Longleat (6).

Var. pendula (Schaer.) Howe. (U. plicata Ach.).

- 5. Lev Hill, Porlock (1915); Exford, Exton, Holford Combe, Quantocks.
- 6. Stourhead to Longleat (1915).

Form scabrata Nyl. is coextensive.

U. articulata (L.) Hoff. On old trees. Rare.

5. On oak, Exton (1915; N.R.C.), Whitestaunton and Culmhead. On apple and elm, Northay near Chard.

6. Wood near Gare Hill (1915; N.R.C.).

Evernia prunastri (L.) Ach. Very common on trees, shrubs and heather (on ling, Blackdowns in v.c. 5), occasionally on pales, rarely on rocks or ground, 0–1700 ft. Form munda, which is without soredia, is taken as the type. First records: Taunton (1908; W.o.S.) for 5 and Frome (P.) for 6.

Form sorediifera Ach. Common (5, Puckington, 1915; 6, Somerton, 1923).

Var. nana Lamy. On rocks, Blue Anchor in v.c. 5 (1923; L.N. II).

FAMILY XIX. PARMELIACEÆ

Cetraria aculeata (Schreb.) Fr. (var. campestris Schaer., is taken as type). On the ground, soil-capped rocks and among mosses on heathy ground, usually on the hills (600–1700 ft.) but descending to sea-level on Minehead Warren. Frequent.

5. Exmoor (1912); Blackdowns; Quantocks; Croydon

Hill; Haddon Hill; Minehead and Dunster.

6. On siliceous heaths of Mendip.

Form subnigrescens Harm.

5. Blackdowns (1915; N.R.C.); Quantocks.

Form edentula Ach.

5. Leigh Hill and Staple Hill, Blackdowns (1915; N.R.C.); Dunkery; Treborough.

Form acanthella (Ach.) Nyl.

5. Leigh Hill and Staple Hill, Blackdowns (1915; N.R.C.). Var. hispida (Light.) Cromb. (Lichen muricatus Ach.).

5. On rocks, Cow Castle, Simonsbath (1916).

Platysma glaucum (L.) Nyl. On trees, especially oak, occasionally on rocks or on the ground. Frequent in the hilly districts.

5. Quantocks (1911); Blackdowns; Brendons; Croydon Hill; Exmoor (common).

6. Kingsettle Hill (on birch, 1915); Penselwood; Mendip. Form sorediosum Oliv. Probably coextensive with the type but with definite localities from v.c. 5 only.

Var. fallax (Web.) Nyl.

- 5. Cocker Combe, Quantocks (1911); Treborough, Brendons; Millon's Combe, Exmoor. On beech, Buckland St. Mary, Blackdowns.
- 6. Penselwood (1920).
- Hypogymnia physodes (L.) Nyl. Very common on trees, frequent on pales, occasional on ling (Quantocks, Blackdowns, Exmoor and Mendip), ground (Will's Neck) or rock, 0–1700 ft. (W.o.S., B.M.S.).
 - Form labrosa Ach.. Common and coextensive with the type. Form viridis mihi. Thallus green, almost as green as in Parmelia caperata. On shaded trunk of beech, Buckland St. Mary, 900 ft. (1923). The peculiar colour is doubtless due to the shaded and moist habitat.

Var. tubulosa Schaer. Fairly frequent (N.R.C.). Habitat as in the type.

- 5. Buncombe (1908), Will's Neck and Holford Combe, Quantocks; Milverton; Wiveliscombe; Buckland St. Mary; Porlock; Exford.
- 6. Shapwick (1916).

Var. platyphylla Ach. On old pales and walls. Frequent.

- 5. Taunton district (1915; N.R.C.).; Crowcombe; Holford; Staple Hill; Buckland St. Mary; Croydon Hill to Dunster.
- 6. Standerwick (1869; P.!); Harptree Combe.

Parmelia perlata (Huds.) auct. plur. (P. trichotera Hue). Type is form sorediata (Schaer.). Common on the trunks of old trees, especially oak, occasionally on rock, 0–1500 ft. Collected by Dr. Parsons at Berkley (6) in 1869. The medulla of P. perlata Hue, has a rosy coloration when caustic potash solution is followed by bleaching powder. Specimens from Combe St. Nicholas and Otterford (and var. ciliata) show this reaction partly but no other Somerset specimen tested shows it. There is a great deal of doubt about Hue's naming and the confusion is not cleared by Du Rietz in 'Kritische Bemerkungen über die Parmelia perlata-Group' (Kristiania, 1924).

Form microphylla Wats. (N.R.C.). On flint wall, Combe St. Nicholas in v.c. 5.

Var. ciliata (D.C.) Schaer., is frequent in v.c. 5 and has been noted at Somerton in v.c. 6.

Var. claudelii Harm. A plant found on rock, Wilmersham near Porlock (5), seems to belong here (N.R.C.), though there is some doubt as to the nomenclature of Harmand's plant. He gives it as a variety of *P. perforata*.

P. crinita Ach. (P. proboscoidea Tayl.). On rock, Horner

Wood (5).

P. caperata (L.) Th.Fr. (P. cyclisphora Ach.). Common on trees, rocks and boulders, 0–1200 ft. First records: 6, Great Elm (1894; P.); 5, Taunton (1908; W.o.S.).

Form sorediosa Malbr., is frequent.

Var. saxicola Müll., is rare, though saxicolous plants of the type are common.

5. On shingle, Porlock Weir (1917).

P. conspersa (Ehrh.) Ach. On rocks and boulders.

5. Selworthy Beacon (1913); Tarr Steps, Exmoor.

Var. isidiata (Anzi) Leight. On rocks or slated or tiled roofs.

- 5. Near Porlock (1913). Slate roof, Norton Fitzwarren church.
- P. laevigata (Sm.) Ach. On mossy rocks. Rare.
 - 5. Simonsbath (1908; N.R.C.); Thorncombe Hill, Quantocks.
- P. revoluta Flk. Common on mossy trees or rocks, 0-1400 ft. (N.R.C.). It occurs on shingle at Dunster. First records: 5, Badgworthy (1913); 6, Cricket St. Thomas (1914).

Form minor Harm., is also common (N.R.C., B.M.S.).

Var. rugosa (Tayl.) Crombie, has been noted without definite locality in v.c. 5. In v.c. 6 it occurs on birch, Kingsettle Hill (N.R.C.). On beech, in the same locality, its form panniformis Crombie, occurs (1915).

P. tiliacea (Hoff.) Ach. On tree-trunks. Rare.

5. Castle Neroche (1912) and Milverton (N.R.C.).

6. Recorded from Beckington (P.) but the specimen is a somewhat atypical one of *P. scortea*.

Var. carporhizans Tayl. On trees.

5. Dunster, on the hill by the tower, on oaks, 1799 (Sowerby's herbarium, B.M.).

P. scortea Ach. On trees and pales, sometimes on rocks.

5. On slate roof, Weston Farm near Chard (1920).

6. Beckington (leg. P. 1869).

P. dubia (Wulf.) Schaer. (P. borreri Turn.). Common throughout the county on trees, occasionally on pales, rarely on rock (Blue Anchor) 50–800 ft. First records: 5, Broomfield (1913); 6, Lullington (leg. P. 1868).

Var. ulophylla (Ach.) Harm. On Lombardy poplar, Oake near Taunton (1927). On alder, near R. Tone, Bishop's

Hull.

P. reddenda Stirt., has been noted as occurring near Taunton (1915) but the specimen has been lost. It may possibly have belonged to P. negata Nyl. In any case the specific segregation of these plants is doubtful.

P. exasperata (Ach.) Carroll. On trunks of trees, very rarely on rock. This is given as common in the s. and w. counties of England by some authors, but it is probable that many

of the records refer to the next species.

5. On young oak at 800 ft., Grabbist Hill, Minehead (c. fr.

1923). On elder and shingle, Dunster.

P. fuliginosa (Fr.) Nyl. Common on trees, pales and rocks (usually siliceous), 0–1200 ft. First records: 5, Taunton (1912); 6, Bruton (1907).

Form aterrima Wedd. A very dark form on rock.

5. Withypool (1918); Porlock; Triscombe, Quantocks.

6. Ashton Court (1923; B.M.S.).

Var. glabratula (Lamy.) Oliv. (form denudata Cromb.).

5. Holford Combe, Quantocks (1915; N.R.C.).

6. Near Longleat (1915).

Var. laetevirens (Flot.) Nyl. Common on trees, rare on rocks. First records: 5, Curland (1914); 6, Shapwick (1915).

P. subaurifera Nyl. Common on trees, sometimes on pales, 0–1500 ft. First records: 5, Quantocks (1912); 6, Lullington (1869: Parson's specimen of P. olivacea, a species which has not been found in Somerset).

P. saxatilis (L.) Ach. Very common on trees, pales, walls, rocks, slates and tiles, 0-1700 ft. (V.C.H., W.o.S.,

B.M.S.). Form furfuracea Schaer., is also common.

Form panniformis Cromb. On rock, Oareford (1913) in v.c. 5.

Var. laevis Nyl. On oak, Hodder's Combe, Quantocks (1915).

- P. sulcata Tayl. Common on trees and rocks, 0–1600 ft. Collected at Tellisford (1868; P.) in v.c. 6 and near Taunton (1912) in v.c. 5.
- P. omphalodes (L.) Ach. On rocks and boulders. This has been recorded from Exmoor but without definite locality.

FAMILY XX. LECANORACEÆ

- Squamaria crassa (Huds.) D.C. (Lecanora cartilaginea A.L.Sm.). On rocks, soil-caps of rocks, ground or spreading over mosses, especially near the sea and in calcareous districts, 0–1000 ft. (Lich.C.S.).
 - 6. Cheddar (1875; W.J.) and Cleeve Hill (W.J., B.M.); Mendip (common); Brean Down; Berrow dunes.
- S. saxicola (Poll.) Hook. (Lecanora muralis Schaer.). On rocks, tiles, rarely pales, 0–700 ft.
 - Haygrass (1917), Bishop's Hull, Kingston, Norton Fitzwarren (on post) and Orchard Portman near Taunton; Minehead Warren. On boulders in R. Barle near Tarr Stepps. On roof, Combe St. Nicholas. On stone, Bagborough churchyard.
 - 6. Somerton (1923); Ashton Court and Wrington (B.M.S.).
- S. circinata (Pers.) Hook. (L. subimbricata A.L.Sm.). On sarsen stone, Staple Fitzpaine (1916; N.R.C., B.M.). This ultimately becomes red with caustic potash and thus comes under what Nylander named subcircinata.
- Ochrolechia tartarea (L.) Mass. On rocks and old tree-trunks.
 - 5. On tree, Northay near Chard (1921).

Var. subtartarea Nyl. = O. androgyna Arn.

- 5. Treborough (1915); Exton; Combes of Croydon Hill; Dunster; Minehead.
- 6. Penselwood (1920); Somerton.
- O. parella (L.) Mass. On rocks, sometimes on trees, rarely on pales. Common on rocks near the coast and frequent in hilly districts throughout the county. First records: 6, Vallis (1868; P.); 5, Taunton (1914).

Var. turneri (Sm.) B. de Lesd. On trunks of trees (oak, ash, elm, etc.).

5. Castle Neroche (1917); Wrantage; Halsway, Quantocks; Langford Budville; Chipstable.

6. Yatton (1924).

O. pallescens L. On tree, Horner Wood, near Porlock (1922).

Lecanora atra (Huds.) Ach. Common on rocks, walls, tiles, tree-trunks and pales, 0–900 ft. First records: 6, Walton-in-Gordano (1868; P.); 5, Taunton (1911).

L. subfusca (L.) Ach. On trunks of trees, rarely on pales. The type (f. typica Harm.) is not uncommon (N.R.C.).

5. Aisholt (1908), Triscombe, Hodder's and Holford Combes, Quantocks; Stoke and Orchard Portman near Taunton; Staple Hill, Castle Neroche, Combe St. Nicholas and Bewley Down, Blackdowns.

6. Penselwood (1920); Frome.

Form geographica Harm. Thallus intersected with dark lines.

5. Aisholt (1915; N.R.C.) and Merridge near Taunton; Castle Neroche.

Var. glabrata Ach. has been noted at Porlock (on birch) and at Orchard Portman near Taunton (N.R.C.). Its form argentata Ach. occurs on pales at Orchard Portman and on elm at Triscombe, Quantocks.

Var. allophana Ach. On trees, sometimes on pales.

5. Hopcott near Minehead (1911; Loydell); Horner (Paulson, B.M.S. 1921); Chard Common; Stoke St. Mary; Thurlbear; Hawkridge.

6. Somerton (1923).

Form parisiensis (Nyl.) Hue. On trees, often on pales.

5. Chipstable (1915); Nailsbourne and Staplegrove near Taunton; Crowcombe; Castle Neroche.

6. High Ham (1914); Middlezoy.

L. campestris (Schaer.) Nyl. Very common on rocks, chiefly calcareous. Collected from Bruton (6) in 1907 and from Taunton (5) in 1911.

Form detrita Hoff., a state with aborted or altered apothecia (N.R.C.) has been noted near Taunton. Form expansa (Ach.) Harm. and form atrata Nyl. occur on walls near

Taunton, but the latter seems to belong to L. coilocarpa, merely differing in the apothecia being somewhat convex

instead of plane.

L. chlarona Cromb. Common on trees and pales. Collected from Beckington (6) in 1869 (P., det. mihi) and from Taunton (5) in 1913.

Form detrita Hoff, has been noted from Taunton.

Form geographica (Mass.) Nvl.

- 5. Stoke and Merridge near Taunton (1915; N.R.C.).
- 6. Bathampton (H., B.M.).

L. chlarotera Nyl. On trees. Rare.

5. Combe St. Nicholas (1926); Norton Fitzwarren.

L. rugosa (Pers.) Nyl. Common on trunks of trees (W.o.S.). Collected from Beckington (6) by Parsons in 1869 and from Taunton (5) in 1908.

L. intumescens (Reb.) Krb. On trees, rarely on pales, 0-900 ft.

Form dispersa Oliv., is taken as type.

Horner (1915), Aisholt and Crock Street near Chard (N.R.C.); Stoke St. Mary; Croydon Hill combes to Dunster: Minehead: Oareford: Buckland Hill, Blackdowns.

Form geographica Wats. (J. of Bot. 1917).

Aisholt (1915) and Stoke near Taunton (N.R.C.).

- L. coilocarpa (Ach.) Nyl. On rocks (usually siliceous), walls and tiles. Frequent in v.c. 5.
 - 5. Horner near Porlock (1915) and many other localities.

6. Beckington (leg. P. 1869).

L. gangaleoides Nyl. On rocks and walls in hilly districts.

5. Horner (1913); Sticklepath near Monksilver.

L. cenisia Ach., var. atrynea (Ach.) Harm., is usually on siliceous rocks. I have recorded it from Thurlbear (on pale) in N.R.C., but have no specimen in my herbarium.

L. pallida (Schreb.) Schaer. (L. albella Ach.). On trees (oak, beech, apple, hazel, etc.) and pales, 100-1000 ft. Fairly

frequent (N.R.C.).

5. On hazel, Aisholt (1915); Staple, Orchard Portman, Norton, Dodhill and Cothelstone near Taunton; Wambrook and Staple Hill, Blackdowns; Croydon Hill combes to Dunster; Dulverton.

Form subalbella Nyl., and form peralbella Nyl. Nylander differentiated these from the type owing to differences in the reaction of the hymenial gelatine to iodine. These forms are found in both vice counties (N.R.C.) but are scarcely worth distinguishing.

Form geographica mihi. Thallus intersected with dark lines.

On hazel, Aisholt (1915) in v.c. 5 (N.R.C.).

L. carpinea (L.) Wain. (L. angulosa Ach.). Common on trees (elm, willow, apple, etc.) and pales. Collected at Beckington (6, P. 1869) and near Taunton (5, 1911).

Form cinerella (Flk.) Harm. On apple tree, Stoke near Taunton.

- L. sordida (Pers.) Th.Fr. (L. glaucoma Ach.). Form cinereopruinosa Leight., is considered as type. On siliceous rocks.
 - 5. Oare; Selworthy.

Form complanata (Leight.) A.L.Sm., was collected in small quantity on a wall at Merridge near Bridgwater (N.R.C.).

L. galactina Ach. Very common on calcareous rocks and walls, occasionally invading neighbouring siliceous rock, sometimes on brick walls and tiles. First records: 6, Bathampton (H., B.M.); 5, Taunton (1908, Lich.C.S.).

Form atrynella B. de Lesd.

5. Staplegrove near Taunton.

Form monstrosula Lamy.

5. Near Taunton.

Form verrucosa Leight., seems very near to form galactinella (Nyl.) Harm.

- On calcareous wall, Stoke St. Mary and Norton Fitzwarren.
- 6. On limestone rock, Sand Bay near Weston; Purn Hill; Somerton.

Var. dissipata (Nyl.) B. de Lesd. Bishop's Hull near Taunton (N.R.C.).

Var. dispersa (Pers.) Ach. On limestone walls.

- 5. Not uncommon near Taunton (1916; N.R.C.); Bagborough churchyard.
- 6. Cleeve Hill (1917); Clevedon.

L. urbana Nyl. On mortared walls and tiles. Rare.

5. On tiles, Kingston (N.R.C.). On wall, West Monkton.

6. On tiles, Biddisham (1917). On wall, Milton near Wells (Corder).

L. argophilis (Wahl.) Ach. There is a specimen in the B.M., collected by Joshua from Cleeve Hill (6), but it is scarcely a typical one.

L. sulphurea (Hoff.) Ach. On rocks and walls, usually siliceous.
6. A rather damaged specimen from Parsons's herbarium,

collected at Walton in 1869, probably belongs here.

L. polytropa (Ehrh.) Schaer. On siliceous rocks. Common, especially in the hilly districts, 0-1600 ft. First records:
5, Quantocks (1913); 6, Shapwick (1916). The apothecia are often smaller than in N. England or Welsh plants.

Form illusoria (Ach.) Harm. (form acrustacea Schaer.).

5. Quantocks: Huish Champflower.

L. expallens (Pers.) Ach. Very common on trees, especially conifers, and pales, 0-1600 ft. Var. lutescens (D.C.) Nyl. is also common. Both collected in 1913 at Broomfield (5) and High Ham (6).

L. symmicta Ach. Common on trees and pales. Recorded from Quantocks, etc. (5) and High Ham (6) in N.R.C.

L. effusa (Pers.) Ach. On old palings, Bradon Forest (W.J. 1876, B.M.). This is from Somerset sec. B.M. 1918.

L. symmictera Nyl. On pales and tree-trunks.

5. Nailsbourne (1916) and West Hatch near Taunton; Porlock.

6. On pales, Edington Burtle (1916).

L. varia (Ehrh.) Ach. On pales and trunks of trees (especially pine, birch and beech), sometimes on ling (N.R.C.). First records: 5, Taunton (1911); 6, Kingsettle Hill (1915).

Form pleorytis Ach., has been noted, without definite locality,

in v.c. 5, and at Edington Burtle in v.c. 6.

L. farinaria Borr. (L. conizaea Nyl.). Common on pales and trees (N.R.C.). First records: 5, Minehead (1911; Loydell); 6, Sandford Hill (1920).

Var. conizaeoides (Nyl.) A.L.Sm.

5. Wembdon (leg. Corder, 1920).

L. hageni Ach. Common on trees and pales. First records: 6, Wellow near Bath (H., B.M.); 5, Crowcombe (N.R.C.).

B. confervoides Kremp. On shingle.

5. Bossington near Porlock (1913; N.R.C.); Greenaleigh Point (K., B.M.S. 1921).

B. colludens (Nyl.) Tuck., occurs in Dorset and I think that I have seen it near Blue Anchor in v.c. 5.

FAMILY XVI. RAMALINACEÆ

Ramalina calicaris (L.) Fr. Common on trees. First records: 6, Red Lynch (1877; P.). 5, Taunton (1908; W.o.S.). 0-1300 ft.

Var. subampliata Nyl. Adcombe near Taunton (1924).

R. fraxinea (I.) Ach. Common on trees (W.o.S., B.M.S.). Var. taeniformis Ach. is taken as the type. First records: 6, near Frome (1869; P.); 5, Taunton (1908).

Var. ampliata Ach. On old trees (oak, ash, elm, apple,

lime).

5. Haydon (1908), Norton, Stoke, Staple, Orchard Portman, Trull and Poundsford near Taunton (W.o.S., N.R.C.).

6. Bruton (1907); Somerton; Shapwick.

Form monophylla Cromb. has been noted on elm in 5, Norton (N.R.C.) and in 6 at Somerton.

Var. calicariformis Nyl. On trees in oak-ash woods.

- 5. Pickeridge near Taunton (1913; N.R.C., B.M.); Orchard Portman; Combe St. Nicholas.
- R. fastigiata (Pers.) Ach. Very common on trees and occasionally on pales, 0–1600 ft. (W.o.S., B.M.S.). Collected in 1869 from Standerwick (6) by Dr. Parsons and in 1908 from Taunton (5).

Form minutula (Ach.) Cromb. Usually on pales.

5. On trees, Poundsford, Norton and Oake near Taunton.

Var. nervosa Nyl. has been noted from Taunton.

R. farinacea (L.) Ach. Common on trees, 0–1600 ft. Collected in 1869 near Frome (6) by Dr. Parsons and in 1908 from Taunton (5).

Form pendulina Ach. Pendulous on trees.

5. On beech, Exford (1915; N.R.C.), and Bewley Down. Buncombe Wood near Taunton; Langford Budville.

6. Copley Wood, Somerton (1923).

Form phalerata Ach. Usually on pales.

5. Poundsford near Taunton (1923).

6. On pale, Cole (1906; N.R.C.). On old oak, Shapwick.

R. pollinaria (Westr.) Ach. On trees.

- 5. Frequent in Taunton district (1908; W.o.S., N.R.C.); Staple Hill; Combe St. Nicholas; Watchet; Wembdon near Bridgwater (Corder).
- 6. Vallis (1869; P.); Frome; Christon; Somerton.

Form humilis (Ach.) Cromb. On walls, trees and pales.

- 5. On brick walls, Taunton (1908; L.E.R., N.R.C., B.M.) and Cheddon Fitzpaine. On flint of barn wall, Combe St. Nicholas. On oak, Staple Fitzpaine. On poplar and on pales, Pitminster.
- 6. Somerton (1923).

Form intermedians Oliv.

5. On oak, Staple Fitzpaine (1920).

Form cucullata Harm. On brick wall, Taunton (1908).

- R. evernioides Nyl. Infrequent on trees.
 - 5. Williton (1928).
 - 6. Somerton (1928).
- R. scopulorum (Retz.) Ach. (R. siliquosus A.L.Sm.). On rocks and boulders near the sea.
 - 5. Minehead, with forms tuberculosa Oliv., and cornuata (Ach.) Harm. (1911).

Var. incrassata Nyl.

5. Minehead (1908; N.R.C.).

- R. cuspidata (Ach.) Nyl. Included in R. siliquosus in B.M., 1918. On maritime rocks and boulders; rarely on hills at a distance from the sea.
 - 5. Minehead (1908); Selworthy; Volis Hill near Taunton. Form *rugosa* Oliv.
 - 5. Minehead; near Selworthy church.

Form pygmaea (Wedd.) Harm. (f. minor Nyl.). Minehead (N.R.C.).

- R. subfarinacea Nyl. On rocks, very rarely on trees.
 - 5. On wall, Minehead (1908).
- R. polymorpha Ach. On shingle. Very rare.
 - 5. Blue Anchor (1922); Dunster.

B. confervoides Kremp. On shingle.

5. Bossington near Porlock (1913; N.R.C.); Greenaleigh Point (K., B.M.S. 1921).

B. colludens (Nyl.) Tuck., occurs in Dorset and I think that I have seen it near Blue Anchor in v.c. 5.

FAMILY XVI. RAMALINACEÆ

Ramalina calicaris (L.) Fr. Common on trees. First records: 6, Red Lynch (1877; P.). 5, Taunton (1908; W.o.S.). 0-1300 ft.

Var. subampliata Nyl. Adcombe near Taunton (1924).

R. fraxinea (I.) Ach. Common on trees (W.o.S., B.M.S.). Var. taeniformis Ach. is taken as the type. First records: 6, near Frome (1869; P.); 5, Taunton (1908).

Var. ampliata Ach. On old trees (oak, ash, elm, apple,

lime).

5. Haydon (1908), Norton, Stoke, Staple, Orchard Portman, Trull and Poundsford near Taunton (W.o.S., N.R.C.).

6. Bruton (1907); Somerton; Shapwick.

Form monophylla Cromb. has been noted on elm in 5, Norton (N.R.C.) and in 6 at Somerton.

Var. calicariformis Nyl. On trees in oak-ash woods.

- 5. Pickeridge near Taunton (1913; N.R.C., B.M.); Orchard Portman; Combe St. Nicholas.
- R. fastigiata (Pers.) Ach. Very common on trees and occasionally on pales, 0–1600 ft. (W.o.S., B.M.S.). Collected in 1869 from Standerwick (6) by Dr. Parsons and in 1908 from Taunton (5).

Form minutula (Ach.) Cromb. Usually on pales.

5. On trees, Poundsford, Norton and Oake near Taunton.

Var. nervosa Nyl. has been noted from Taunton.

R. farinacea (L.) Ach. Common on trees, 0–1600 ft. Collected in 1869 near Frome (6) by Dr. Parsons and in 1908 from Taunton (5).

Form pendulina Ach. Pendulous on trees.

5. On beech, Exford (1915; N.R.C.), and Bewley Down. Buncombe Wood near Taunton; Langford Budville.

6. Copley Wood, Somerton (1923).

Form phalerata Ach. Usually on pales.

5. Poundsford near Taunton (1923).

6. On pale, Cole (1906; N.R.C.). On old oak, Shapwick.

R. pollinaria (Westr.) Ach. On trees.

- 5. Frequent in Taunton district (1908; W.o.S., N.R.C.); Staple Hill; Combe St. Nicholas; Watchet; Wembdon near Bridgwater (Corder).
- 6. Vallis (1869; P.); Frome; Christon; Somerton.

Form humilis (Ach.) Cromb. On walls, trees and pales.

- 5. On brick walls, Taunton (1908; L.E.R., N.R.C., B.M.) and Cheddon Fitzpaine. On flint of barn wall, Combe St. Nicholas. On oak, Staple Fitzpaine. On poplar and on pales, Pitminster.
- 6. Somerton (1923).

Form intermedians Oliv.

5. On oak, Staple Fitzpaine (1920).

Form cucullata Harm. On brick wall, Taunton (1908).

- R. evernioides Nyl. Infrequent on trees.
 - 5. Williton (1928).
 - 6. Somerton (1928).
- R. scopulorum (Retz.) Ach. (R. siliquosus A.L.Sm.). On rocks and boulders near the sea.
 - 5. Minehead, with forms tuberculosa Oliv., and cornuata (Ach.) Harm. (1911).

Var. incrassata Nyl.

5. Minehead (1908; N.R.C.).

- R. cuspidata (Ach.) Nyl. Included in R. siliquosus in B.M., 1918. On maritime rocks and boulders; rarely on hills at a distance from the sea.
 - 5. Minehead (1908); Selworthy; Volis Hill near Taunton. Form *rugosa* Oliv.
 - 5. Minehead; near Selworthy church.

Form pygmaea (Wedd.) Harm. (f. minor Nyl.). Minehead (N.R.C.).

- R. subfarinacea Nyl. On rocks, very rarely on trees.
 - 5. On wall, Minehead (1908).
- R. polymorpha Ach. On shingle. Very rare.
 - 5. Blue Anchor (1922); Dunster.

FAMILY XVII. LECANIACEÆ

Solenopsora candicans (Dicks.) Zahl. (Placolecania c. Zahl.; Diphratora c. Jatta.). On calcareous rocks and walls. Frequent.

5. Taunton (1915) and Forde Abbey (N.C.R.); Stoke St. Mary; Bishop's Hull; Oake; Wiveliscombe; Pucking-

ton; Wambrook; Whitestaunton; Wellington.

6. Claverton Down near Bath (1809; E.F.); Wells, Cleeve Hill (W.J.), Weston (Hb.R.) and Walton-in-Gordano (B.M.); Mells (P.); Uphill; Brean Down; Bleadon; Loxton; Shipham; Mendip (N.R.C.); Clevedon; Yatton; Wrington (B.M.S.); Somerton.

Lecania erysibe (Ach.) Mudd. On rocks, occasionally on trees (on elm, Higher Thurlbear) or pales. Common throughout the county (Lich.C.S.; J. of Bot. 1924). First records:

6, Bathampton (H., B.M.); 5, Taunton (1912).

Form crenulata B. de Lesd. Curland (1922), in v.c. 5.

Var. cinereofusca Mudd.

5. On calciferous sandstone wall, Langford near Taunton (1914).

6. On carboniferous limestone, Brean Down (1914; N.R.C.). Var. subcaesia Nyl.

5. On white lias wall, Thurlbear (1922).

Var. rabenhorstii (Hepp.) has apothecia which become convex and immarginate and is synonymous with Biatora proteiformis Mass., sec. Harmand. Crombie in B.M., 1894, records proteiformis from Bathampton, but the specimen in the B.M. from that locality (leg. H.) is the type. He also says that the spores are smaller and narrower (2–4 micromillimetres) than in the type, and this statement is borne out by an examination of the plants found on limestone rocks near Taunton.

5. White Lias walls near Taunton (1915; N.R.C.); Halsway and Crowcombe; Chard.

Var. sincerior (Nyl.) B. de Lesd.

5. Cheddon Fitzpaine (1928).

6. Clevedon (1923).

- L. albariella (Nyl.) Mull. On calcareous rocks and walls.
 - 5. Orchard Portman (1918) and Hele near Taunton; Lilstock.
 - 6. Burnham (1927).

Form lecideina Nyl.

- 5. Kilton (1918); Combe St. Nicholas.
- L. prosechoides (Nyl.) Oliv. On maritime rocks.
 - 5. On sea face of cliff near Greenaleigh Point (1920).
 - 6. Clevedon (1924); Sand Bay.
- L. prosechoidiza (Nyl.) A.L.Sm. On maritime rocks. Very rare. Minehead (5) and Steep Holm (6; J. of Bot. 1924).
- L. dubitans (Nyl.) A.L.Sm. (L. dimera Th.Fr.). Very rare.
 - 5. On wood of hut, Withypool (1918).
- L. syringea (Ach.) Th.Fr. On trees and pales. Rare.
 - 5. On pales with form *minuta* (B. de Lesd.), Cutley Farm near Taunton (1922). On elder, Clatworthy, Minehead and Watchet. On trees, Nailsbourne near Taunton, Langford Heathfield (f. *minuta*) and Tolland.
 - 6. On trees, Somerton (1923).
- Thalloidima coeruleo-nigricans (Light.) Th.Fr. On calcareous rocks, occasionally on calcareous soil (Lich.C.S.).
 - 6. Bathford (1856; B., B.M.); Cleeve Hill and Yatton (W.J., B.M.); Berrow (S.D.); Uphill; Goblin Combe.

Form glebosa Cromb.

- 6. Yatton (1877; W.J.).
- T. candidum (Web.) Mass. On calcareous rocks and soil.
 - 6. Cleeve Hill (1877; W.J., B.M.); Yatton and Goblin Combe (B.M.S.).
- Biatorina littorella (Nyl.) A.L.Sm. On hard rocks. Very rare.
 - 5. Ruborough Camp, Broomfield (1914; N.R.C., B.M.); North Hill, Minehead (K., B.M.S., 1921).
- B. pilularis Krb. On mossy trunks of trees.
 - 5. Horner Wood (K., B.M.S., 1921).
- B. graniformis (Hag.) A.L.Sm. (B. ehrhartiana Mudd.). On pales, occasionally on tree-trunks.
 - 5. On oak, Bagborough.
 - 6. On old pine, Shapwick (1916; N.R.C.); Weston-in-Gordano.

- B. cyrtella (Ach.) Th.Fr. (Lecania c. Oliv.). On the bark of elder.
 - 5. Broomfield (1920); Combe St. Nicholas; Ely Wood near Chard.
- B. griffithii (Sm.) Mass. [B. tricolor (With.) of many authors]. On trees, usually those with smoothish bark.
 - On oak, Broomfield (1916). On willow, Buckland St. Mary. Cutley and Norton near Taunton; Perriton Combe near Minehead; Langford Heathfield; Williton.
 - 6. Wrington Warren (1923; B.M.S.); Copley Wood, Somerton. Kingsdon.
- B. fallax (Hepp.) A.L.Sm. On elm bark. This plant was recorded by Larbalestier from Leigh Wood (6) in 1865, but there is no specimen in the B.M. A plant collected from Whitford above Corfe (5) in 1927 is probably this, but the material is insufficient to decide.
- B. globulosa (Flk.) Krb. is recorded from trees at Horner near Porlock (Paulson, B.M.S. 1921).
- B. lightfootii (Sm.) Mudd. On trees, especially birch.
 - 5. Chard Common (1914); Castle Neroche; Broomfield (beech) and Holford Combe (young oak), Quantocks; Dunster (ash).
 - 6. Berkley Hill (1869) and Orchardleigh (P.); Shapwick (1916).
 - Var. commutata (Ach.) Mudd. On the trunks of old trees.
 - 5. Chard Common (1913; N.R.C.).
 - 6. Shapwick (1916).
- B. synothea (Ach.) Krb. On old pales and tree-stumps, 0–1200 ft.
 - 5. Norton (1916), Cushuish, Cheddon and Kingston near Taunton; Crowcombe; near Bagborough Plantation.
 - 6. On pales, Ashcott (1924).
 - Forms fusca B. de Lesd. and sublivescens Nyl. have been noted from old stumps, Crowcombe.
 - Var. subnigrata Nyl. On rocks. A specimen, collected by Joshua in 1876 from Bathampton Downs and determined by Crombie, is in the B.M.
- B. atropurpurea (Schaer.) Mass. On trunks of old trees, rarely on the bryophytes covering the trunks.

5. Wood above Pitminster (1916; N.R.C.); Horner Wood (1921; K., B.M.S.). The apothecia of both these plants have the hymenial gelatine persistently blue with iodine. They therefore belong to *Lecidea atropurpurascens* Nyl., which is scarcely worth distinguishing even as a form.

B. lenticularis (Ach.) Krb. Common on rocks, especially calcareous ones (Lich.C.S.), 0–1000 ft. First records: 6,

Bathampton (H., B.M.); 5, Quantoxhead (1915).

Form acrustacea (Hepp.). On Lynton slate wall, Shore-ditch near Taunton (1918).

Form nigricans Arnold. Usually on calcareous rocks.

5. Near Roadwater (1919); Kingston. On shingle near Minehead.

6. Bathampton (H., det. Crombie, B.M.); Goblin Combe; Cheddar; Ebbor Gorge; Pen Hill (leg. Corder).

Form oxydata Leight. (v. erubescens Krb.), occurs on a stone near a stream at Hatch Green (5). The coloration in this case is probably due to intermixed *Trentepohlia aurea*. A doubtful specimen was collected at Harptree Combe (6).

Var. chloropoliza (Nyl.) A.L.Sm.

6. Clevedon (1924).

B. prasina (Fr.) Syd. This is usually found on trees but a plant from a bare bank at Vexford near Stogumber (5) agrees (L.N. IV).

B. epiblastematica (Wallr.) A.L.Sm. (Scutula e. Rehm; S.

wallrothii Tul.).

6. On the thallus of *Peltigera rufescens*, Cleeve Combe (1923, Darbishire, B.M.S.).

B. episema (Nyl.) A.L.Sm. Parasitic on crustaceous lichens.5. On Lecanora coilocarpa, Cheddon Fitzpaine (1915).

6. On Aspicilia calcarea, Yatton (1875; W.J., B.M.).

Catillaria chalybeia (Borr.) Lettau. On siliceous rocks and stones.

5. Volis Hill (1917); Merridge and Cothelstone Beacon, Quantocks; Blue Anchor.

6. Pen Hill near Wells (1921; leg. Corder).

Microphiale diluta (Pers.) Zahl. (Biatorina d. Th.Fr.; Gyalecta d. Wain.). Rare.

5. On firs, Castle Neroche (1917); Whitford, above Corfe.

FAMILY XVIII. USNEACEÆ

Usnea florida (L.) Web. Common on the trunks and branches of trees, rarely on ling, rocks or sand, 0-1500 ft (W.o.S., B.S.M.). Collected from Taunton (5) in 1908 and from Bruton (6) in 1906.

Forms papulata Harm., annulata Arn., and soredifera Arn.,

have been noted from the Exe Valley.

Var. hirta (L.) Ach. Common. Habitat and first records

as the type.

U. plicata (L.) Web. (U. ceratina Ach.). Common on trees, rarely on rocks. First records: 5, Kingston (1911); 6, Bruton (1907).

Form annulata B. de Lesd. has been noted at Treborough (5).

Form scabrosa Ach.. Frequent in 5.

Form ferruginascens Crombie has been noted at Whites-

taunton (5).

U. rubiginea (Mich.) Herre, recorded in N.R.C., does not appear to be worth a specific segregation, its affinity with red forms of U. florida (especially the var. hirta) being much too close. Plants having a red colour have been noted on the Blackdowns, Brendons and at Exton in v.c. 5 and near Longleat in v.c. 6. Most of these are pendulous and must be considered as red forms of *U. plicata* Web.

 $U.\ barbata$ (Huds.) Web. $=U.\ dasypoga$ (Ach.) Nyl. On treetrunks.

- 5. Exton (1915); Treborough; Culmhead, Bewley Down and Castle Neroche, Blackdowns.
- 6. Laverton (sec. P.). Near Longleat (1915); Penselwood. Form scabrata Nyl. On oak, near Brendon Hill (5) and near Longleat (6).

Var. pendula (Schaer.) Howe. (U. plicata Ach.).

- 5. Lev Hill, Porlock (1915); Exford, Exton, Holford Combe, Quantocks.
- 6. Stourhead to Longleat (1915).

Form scabrata Nyl. is coextensive.

U. articulata (L.) Hoff. On old trees. Rare.

5. On oak, Exton (1915; N.R.C.), Whitestaunton and Culmhead. On apple and elm, Northay near Chard.

6. Wood near Gare Hill (1915; N.R.C.).

Evernia prunastri (L.) Ach. Very common on trees, shrubs and heather (on ling, Blackdowns in v.c. 5), occasionally on pales, rarely on rocks or ground, 0–1700 ft. Form munda, which is without soredia, is taken as the type. First records: Taunton (1908; W.o.S.) for 5 and Frome (P.) for 6.

Form sorediifera Ach. Common (5, Puckington, 1915; 6, Somerton, 1923).

Var. nana Lamy. On rocks, Blue Anchor in v.c. 5 (1923; L.N. II).

FAMILY XIX. PARMELIACEÆ

Cetraria aculeata (Schreb.) Fr. (var. campestris Schaer., is taken as type). On the ground, soil-capped rocks and among mosses on heathy ground, usually on the hills (600–1700 ft.) but descending to sea-level on Minehead Warren. Frequent.

5. Exmoor (1912); Blackdowns; Quantocks; Croydon

Hill; Haddon Hill; Minehead and Dunster.

6. On siliceous heaths of Mendip.

Form subnigrescens Harm.

5. Blackdowns (1915; N.R.C.); Quantocks.

Form edentula Ach.

5. Leigh Hill and Staple Hill, Blackdowns (1915; N.R.C.); Dunkery; Treborough.

Form acanthella (Ach.) Nyl.

5. Leigh Hill and Staple Hill, Blackdowns (1915; N.R.C.). Var. hispida (Light.) Cromb. (Lichen muricatus Ach.).

5. On rocks, Cow Castle, Simonsbath (1916).

Platysma glaucum (L.) Nyl. On trees, especially oak, occasionally on rocks or on the ground. Frequent in the hilly districts.

5. Quantocks (1911); Blackdowns; Brendons; Croydon Hill; Exmoor (common).

6. Kingsettle Hill (on birch, 1915); Penselwood; Mendip. Form sorediosum Oliv. Probably coextensive with the type but with definite localities from v.c. 5 only.

Var. fallax (Web.) Nyl.

- 5. Cocker Combe, Quantocks (1911); Treborough, Brendons; Millon's Combe, Exmoor. On beech, Buckland St. Mary, Blackdowns.
- 6. Penselwood (1920).
- Hypogymnia physodes (L.) Nyl. Very common on trees, frequent on pales, occasional on ling (Quantocks, Blackdowns, Exmoor and Mendip), ground (Will's Neck) or rock, 0–1700 ft. (W.o.S., B.M.S.).
 - Form labrosa Ach.. Common and coextensive with the type. Form viridis mihi. Thallus green, almost as green as in Parmelia caperata. On shaded trunk of beech, Buckland St. Mary, 900 ft. (1923). The peculiar colour is doubtless due to the shaded and moist habitat.

Var. tubulosa Schaer. Fairly frequent (N.R.C.). Habitat as in the type.

- 5. Buncombe (1908), Will's Neck and Holford Combe, Quantocks; Milverton; Wiveliscombe; Buckland St. Mary; Porlock; Exford.
- 6. Shapwick (1916).

Var. platyphylla Ach. On old pales and walls. Frequent.

- 5. Taunton district (1915; N.R.C.).; Crowcombe; Holford; Staple Hill; Buckland St. Mary; Croydon Hill to Dunster.
- 6. Standerwick (1869; P.!); Harptree Combe.

Parmelia perlata (Huds.) auct. plur. (P. trichotera Hue). Type is form sorediata (Schaer.). Common on the trunks of old trees, especially oak, occasionally on rock, 0–1500 ft. Collected by Dr. Parsons at Berkley (6) in 1869. The medulla of P. perlata Hue, has a rosy coloration when caustic potash solution is followed by bleaching powder. Specimens from Combe St. Nicholas and Otterford (and var. ciliata) show this reaction partly but no other Somerset specimen tested shows it. There is a great deal of doubt about Hue's naming and the confusion is not cleared by Du Rietz in 'Kritische Bemerkungen über die Parmelia perlata-Group' (Kristiania, 1924).

Form microphylla Wats. (N.R.C.). On flint wall, Combe St. Nicholas in v.c. 5.

Var. ciliata (D.C.) Schaer., is frequent in v.c. 5 and has been noted at Somerton in v.c. 6.

Var. claudelii Harm. A plant found on rock, Wilmersham near Porlock (5), seems to belong here (N.R.C.), though there is some doubt as to the nomenclature of Harmand's plant. He gives it as a variety of *P. perforata*.

P. crinita Ach. (P. proboscoidea Tayl.). On rock, Horner

Wood (5).

P. caperata (L.) Th.Fr. (P. cyclisphora Ach.). Common on trees, rocks and boulders, 0–1200 ft. First records: 6, Great Elm (1894; P.); 5, Taunton (1908; W.o.S.).

Form sorediosa Malbr., is frequent.

Var. saxicola Müll., is rare, though saxicolous plants of the type are common.

5. On shingle, Porlock Weir (1917).

P. conspersa (Ehrh.) Ach. On rocks and boulders.

5. Selworthy Beacon (1913); Tarr Steps, Exmoor.

Var. isidiata (Anzi) Leight. On rocks or slated or tiled roofs.

- 5. Near Porlock (1913). Slate roof, Norton Fitzwarren church.
- P. laevigata (Sm.) Ach. On mossy rocks. Rare.
 - 5. Simonsbath (1908; N.R.C.); Thorncombe Hill, Quantocks.
- P. revoluta Flk. Common on mossy trees or rocks, 0-1400 ft. (N.R.C.). It occurs on shingle at Dunster. First records: 5, Badgworthy (1913); 6, Cricket St. Thomas (1914).

Form minor Harm., is also common (N.R.C., B.M.S.).

Var. rugosa (Tayl.) Crombie, has been noted without definite locality in v.c. 5. In v.c. 6 it occurs on birch, Kingsettle Hill (N.R.C.). On beech, in the same locality, its form panniformis Crombie, occurs (1915).

P. tiliacea (Hoff.) Ach. On tree-trunks. Rare.

5. Castle Neroche (1912) and Milverton (N.R.C.).

6. Recorded from Beckington (P.) but the specimen is a somewhat atypical one of *P. scortea*.

Var. carporhizans Tayl. On trees.

5. Dunster, on the hill by the tower, on oaks, 1799 (Sowerby's herbarium, B.M.).

Var. ciliata (D.C.) Schaer., is frequent in v.c. 5 and has been noted at Somerton in v.c. 6.

Var. claudelii Harm. A plant found on rock, Wilmersham near Porlock (5), seems to belong here (N.R.C.), though there is some doubt as to the nomenclature of Harmand's plant. He gives it as a variety of *P. perforata*.

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Wood (5).

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P. tiliacea (Hoff.) Ach. On tree-trunks. Rare.

5. Castle Neroche (1912) and Milverton (N.R.C.).

6. Recorded from Beckington (P.) but the specimen is a somewhat atypical one of *P. scortea*.

Var. carporhizans Tayl. On trees.

5. Dunster, on the hill by the tower, on oaks, 1799 (Sowerby's herbarium, B.M.).

P. scortea Ach. On trees and pales, sometimes on rocks.

5. On slate roof, Weston Farm near Chard (1920).

6. Beckington (leg. P. 1869).

P. dubia (Wulf.) Schaer. (P. borreri Turn.). Common throughout the county on trees, occasionally on pales, rarely on rock (Blue Anchor) 50–800 ft. First records: 5, Broomfield (1913); 6, Lullington (leg. P. 1868).

Var. ulophylla (Ach.) Harm. On Lombardy poplar, Oake near Taunton (1927). On alder, near R. Tone, Bishop's

Hull.

P. reddenda Stirt., has been noted as occurring near Taunton (1915) but the specimen has been lost. It may possibly have belonged to P. negata Nyl. In any case the specific segregation of these plants is doubtful.

P. exasperata (Ach.) Carroll. On trunks of trees, very rarely on rock. This is given as common in the s. and w. counties of England by some authors, but it is probable that many

of the records refer to the next species.

5. On young oak at 800 ft., Grabbist Hill, Minehead (c. fr.

1923). On elder and shingle, Dunster.

P. fuliginosa (Fr.) Nyl. Common on trees, pales and rocks (usually siliceous), 0–1200 ft. First records: 5, Taunton (1912); 6, Bruton (1907).

Form aterrima Wedd. A very dark form on rock.

5. Withypool (1918); Porlock; Triscombe, Quantocks.

6. Ashton Court (1923; B.M.S.).

Var. glabratula (Lamy.) Oliv. (form denudata Cromb.).

5. Holford Combe, Quantocks (1915; N.R.C.).

6. Near Longleat (1915).

Var. laetevirens (Flot.) Nyl. Common on trees, rare on rocks. First records: 5, Curland (1914); 6, Shapwick (1915).

P. subaurifera Nyl. Common on trees, sometimes on pales, 0–1500 ft. First records: 5, Quantocks (1912); 6, Lullington (1869: Parson's specimen of P. olivacea, a species which has not been found in Somerset).

P. saxatilis (L.) Ach. Very common on trees, pales, walls, rocks, slates and tiles, 0-1700 ft. (V.C.H., W.o.S.,

B.M.S.). Form furfuracea Schaer., is also common.

Form panniformis Cromb. On rock, Oareford (1913) in v.c. 5.

Var. laevis Nyl. On oak, Hodder's Combe, Quantocks (1915).

- P. sulcata Tayl. Common on trees and rocks, 0–1600 ft. Collected at Tellisford (1868; P.) in v.c. 6 and near Taunton (1912) in v.c. 5.
- P. omphalodes (L.) Ach. On rocks and boulders. This has been recorded from Exmoor but without definite locality.

FAMILY XX. LECANORACEÆ

- Squamaria crassa (Huds.) D.C. (Lecanora cartilaginea A.L.Sm.). On rocks, soil-caps of rocks, ground or spreading over mosses, especially near the sea and in calcareous districts, 0–1000 ft. (Lich.C.S.).
 - 6. Cheddar (1875; W.J.) and Cleeve Hill (W.J., B.M.); Mendip (common); Brean Down; Berrow dunes.
- S. saxicola (Poll.) Hook. (Lecanora muralis Schaer.). On rocks, tiles, rarely pales, 0–700 ft.
 - Haygrass (1917), Bishop's Hull, Kingston, Norton Fitzwarren (on post) and Orchard Portman near Taunton; Minehead Warren. On boulders in R. Barle near Tarr Stepps. On roof, Combe St. Nicholas. On stone, Bagborough churchyard.
 - 6. Somerton (1923); Ashton Court and Wrington (B.M.S.).
- S. circinata (Pers.) Hook. (L. subimbricata A.L.Sm.). On sarsen stone, Staple Fitzpaine (1916; N.R.C., B.M.). This ultimately becomes red with caustic potash and thus comes under what Nylander named subcircinata.
- Ochrolechia tartarea (L.) Mass. On rocks and old tree-trunks.
 - 5. On tree, Northay near Chard (1921).

Var. subtartarea Nyl.=O. androgyna Arn.

- 5. Treborough (1915); Exton; Combes of Croydon Hill; Dunster; Minehead.
- 6. Penselwood (1920); Somerton.
- O. parella (L.) Mass. On rocks, sometimes on trees, rarely on pales. Common on rocks near the coast and frequent in hilly districts throughout the county. First records: 6, Vallis (1868; P.); 5, Taunton (1914).

Var. turneri (Sm.) B. de Lesd. On trunks of trees (oak, ash, elm, etc.).

5. Castle Neroche (1917); Wrantage; Halsway, Quantocks; Langford Budville; Chipstable.

6. Yatton (1924).

O. pallescens L. On tree, Horner Wood, near Porlock (1922).

Lecanora atra (Huds.) Ach. Common on rocks, walls, tiles, tree-trunks and pales, 0–900 ft. First records: 6, Walton-in-Gordano (1868; P.); 5, Taunton (1911).

L. subfusca (L.) Ach. On trunks of trees, rarely on pales. The type (f. typica Harm.) is not uncommon (N.R.C.).

 Aisholt (1908), Triscombe, Hodder's and Holford Combes, Quantocks; Stoke and Orchard Portman near Taunton; Staple Hill, Castle Neroche, Combe St. Nicholas and Bewley Down, Blackdowns.

6. Penselwood (1920); Frome.

Form geographica Harm. Thallus intersected with dark lines.

5. Aisholt (1915; N.R.C.) and Merridge near Taunton; Castle Neroche.

Var. glabrata Ach. has been noted at Porlock (on birch) and at Orchard Portman near Taunton (N.R.C.). Its form argentata Ach. occurs on pales at Orchard Portman and on elm at Triscombe, Quantocks.

Var. allophana Ach. On trees, sometimes on pales.

5. Hopcott near Minehead (1911; Loydell); Horner (Paulson, B.M.S. 1921); Chard Common; Stoke St. Mary; Thurlbear; Hawkridge.

6. Somerton (1923).

Form parisiensis (Nyl.) Hue. On trees, often on pales.

5. Chipstable (1915); Nailsbourne and Staplegrove near Taunton; Crowcombe; Castle Neroche.

6. High Ham (1914); Middlezoy.

L. campestris (Schaer.) Nyl. Very common on rocks, chiefly calcareous. Collected from Bruton (6) in 1907 and from Taunton (5) in 1911.

Form detrita Hoff., a state with aborted or altered apothecia (N.R.C.) has been noted near Taunton. Form expansa (Ach.) Harm. and form atrata Nyl. occur on walls near

Taunton, but the latter seems to belong to L. coilocarpa, merely differing in the apothecia being somewhat convex instead of plane.

L. chlarona Cromb. Common on trees and pales. Collected from Beckington (6) in 1869 (P., det. mihi) and from Taunton (5) in 1913.

Form detrita Hoff, has been noted from Taunton.

Form geographica (Mass.) Nvl.

- 5. Stoke and Merridge near Taunton (1915; N.R.C.).
- 6. Bathampton (H., B.M.).
- L. chlarotera Nyl. On trees. Rare.

5. Combe St. Nicholas (1926); Norton Fitzwarren.

L. rugosa (Pers.) Nyl. Common on trunks of trees (W.o.S.). Collected from Beckington (6) by Parsons in 1869 and from Taunton (5) in 1908.

L. intumescens (Reb.) Krb. On trees, rarely on pales, 0-900 ft.

Form dispersa Oliv., is taken as type.

Horner (1915), Aisholt and Crock Street near Chard (N.R.C.); Stoke St. Mary; Croydon Hill combes to Dunster: Minehead: Oareford: Buckland Hill, Blackdowns.

Form geographica Wats. (J. of Bot. 1917).

Aisholt (1915) and Stoke near Taunton (N.R.C.).

- L. coilocarpa (Ach.) Nyl. On rocks (usually siliceous), walls and tiles. Frequent in v.c. 5.
 - 5. Horner near Porlock (1915) and many other localities.

6. Beckington (leg. P. 1869).

L. gangaleoides Nyl. On rocks and walls in hilly districts.

5. Horner (1913); Sticklepath near Monksilver.

L. cenisia Ach., var. atrynea (Ach.) Harm., is usually on siliceous rocks. I have recorded it from Thurlbear (on pale) in N.R.C., but have no specimen in my herbarium.

L. pallida (Schreb.) Schaer. (L. albella Ach.). On trees (oak, beech, apple, hazel, etc.) and pales, 100-1000 ft. Fairly

frequent (N.R.C.).

5. On hazel, Aisholt (1915); Staple, Orchard Portman, Norton, Dodhill and Cothelstone near Taunton; Wambrook and Staple Hill, Blackdowns; Croydon Hill combes to Dunster; Dulverton.

Form subalbella Nyl., and form peralbella Nyl. Nylander differentiated these from the type owing to differences in the reaction of the hymenial gelatine to iodine. These forms are found in both vice counties (N.R.C.) but are searcely worth distinguishing.

Form geographica mihi. Thallus intersected with dark lines.

On hazel, Aisholt (1915) in v.c. 5 (N.R.C.).

L. carpinea (L.) Wain. (L. angulosa Ach.). Common on trees (elm, willow, apple, etc.) and pales. Collected at Beckington (6, P. 1869) and near Taunton (5, 1911).

Form cinerella (Flk.) Harm. On apple tree, Stoke near Taunton.

- L. sordida (Pers.) Th.Fr. (L. glaucoma Ach.). Form cinereopruinosa Leight., is considered as type. On siliceous rocks.
 - 5. Oare; Selworthy.

Form complanata (Leight.) A.L.Sm., was collected in small quantity on a wall at Merridge near Bridgwater (N.R.C.).

L. galactina Ach. Very common on calcareous rocks and walls, occasionally invading neighbouring siliceous rock, sometimes on brick walls and tiles. First records: 6, Bathampton (H., B.M.); 5, Taunton (1908, Lich.C.S.).

Form atrynella B. de Lesd.

5. Staplegrove near Taunton.

Form monstrosula Lamy.

5. Near Taunton.

Form verrucosa Leight., seems very near to form galactinella (Nyl.) Harm.

- On calcareous wall, Stoke St. Mary and Norton Fitzwarren.
- 6. On limestone rock, Sand Bay near Weston; Purn Hill; Somerton.

Var. dissipata (Nyl.) B. de Lesd. Bishop's Hull near Taunton (N.R.C.).

Var. dispersa (Pers.) Ach. On limestone walls.

- 5. Not uncommon near Taunton (1916; N.R.C.); Bagborough churchyard.
- 6. Cleeve Hill (1917); Clevedon.
- L. urbana Nyl. On mortared walls and tiles. Rare.

5. On tiles, Kingston (N.R.C.). On wall, West Monkton.

6. On tiles, Biddisham (1917). On wall, Milton near Wells (Corder).

L. argophilis (Wahl.) Ach. There is a specimen in the B.M., collected by Joshua from Cleeve Hill (6), but it is scarcely a typical one.

L. sulphurea (Hoff.) Ach. On rocks and walls, usually siliceous.
6. A rather damaged specimen from Parsons's herbarium,

collected at Walton in 1869, probably belongs here.

L. polytropa (Ehrh.) Schaer. On siliceous rocks. Common, especially in the hilly districts, 0-1600 ft. First records:
5, Quantocks (1913); 6, Shapwick (1916). The apothecia are often smaller than in N. England or Welsh plants.

Form illusoria (Ach.) Harm. (form acrustacea Schaer.).

5. Quantocks: Huish Champflower.

L. expallens (Pers.) Ach. Very common on trees, especially conifers, and pales, 0-1600 ft. Var. lutescens (D.C.) Nyl. is also common. Both collected in 1913 at Broomfield (5) and High Ham (6).

L. symmicta Ach. Common on trees and pales. Recorded from Quantocks, etc. (5) and High Ham (6) in N.R.C.

L. effusa (Pers.) Ach. On old palings, Bradon Forest (W.J. 1876, B.M.). This is from Somerset sec. B.M. 1918.

L. symmictera Nyl. On pales and tree-trunks.

5. Nailsbourne (1916) and West Hatch near Taunton; Porlock.

6. On pales, Edington Burtle (1916).

L. varia (Ehrh.) Ach. On pales and trunks of trees (especially pine, birch and beech), sometimes on ling (N.R.C.). First records: 5, Taunton (1911); 6, Kingsettle Hill (1915).

Form pleorytis Ach., has been noted, without definite locality,

in v.c. 5, and at Edington Burtle in v.c. 6.

L. farinaria Borr. (L. conizaea Nyl.). Common on pales and trees (N.R.C.). First records: 5, Minehead (1911; Loydell); 6, Sandford Hill (1920).

Var. conizaeoides (Nyl.) A.L.Sm.

5. Wembdon (leg. Corder, 1920).

L. hageni Ach. Common on trees and pales. First records: 6, Wellow near Bath (H., B.M.); 5, Crowcombe (N.R.C.).

B. confervoides Kremp. On shingle.

5. Bossington near Porlock (1913; N.R.C.); Greenaleigh Point (K., B.M.S. 1921).

B. colludens (Nyl.) Tuck., occurs in Dorset and I think that I have seen it near Blue Anchor in v.c. 5.

FAMILY XVI. RAMALINACEÆ

Ramalina calicaris (L.) Fr. Common on trees. First records: 6, Red Lynch (1877; P.). 5, Taunton (1908; W.o.S.). 0-1300 ft.

Var. subampliata Nyl. Adcombe near Taunton (1924).

R. fraxinea (I.) Ach. Common on trees (W.o.S., B.M.S.). Var. taeniformis Ach. is taken as the type. First records: 6, near Frome (1869; P.); 5, Taunton (1908).

Var. ampliata Ach. On old trees (oak, ash, elm, apple,

lime).

5. Haydon (1908), Norton, Stoke, Staple, Orchard Portman, Trull and Poundsford near Taunton (W.o.S., N.R.C.).

6. Bruton (1907); Somerton; Shapwick.

Form monophylla Cromb. has been noted on elm in 5, Norton (N.R.C.) and in 6 at Somerton.

Var. calicariformis Nyl. On trees in oak-ash woods.

- 5. Pickeridge near Taunton (1913; N.R.C., B.M.); Orchard Portman; Combe St. Nicholas.
- R. fastigiata (Pers.) Ach. Very common on trees and occasionally on pales, 0–1600 ft. (W.o.S., B.M.S.). Collected in 1869 from Standerwick (6) by Dr. Parsons and in 1908 from Taunton (5).

Form minutula (Ach.) Cromb. Usually on pales.

5. On trees, Poundsford, Norton and Oake near Taunton.

Var. nervosa Nyl. has been noted from Taunton.

R. farinacea (L.) Ach. Common on trees, 0–1600 ft. Collected in 1869 near Frome (6) by Dr. Parsons and in 1908 from Taunton (5).

Form pendulina Ach. Pendulous on trees.

5. On beech, Exford (1915; N.R.C.), and Bewley Down. Buncombe Wood near Taunton; Langford Budville.

6. Copley Wood, Somerton (1923).

Form phalerata Ach. Usually on pales.

5. Poundsford near Taunton (1923).

6. On pale, Cole (1906; N.R.C.). On old oak, Shapwick.

R. pollinaria (Westr.) Ach. On trees.

- 5. Frequent in Taunton district (1908; W.o.S., N.R.C.); Staple Hill; Combe St. Nicholas; Watchet; Wembdon near Bridgwater (Corder).
- 6. Vallis (1869; P.); Frome; Christon; Somerton.

Form humilis (Ach.) Cromb. On walls, trees and pales.

- 5. On brick walls, Taunton (1908; L.E.R., N.R.C., B.M.) and Cheddon Fitzpaine. On flint of barn wall, Combe St. Nicholas. On oak, Staple Fitzpaine. On poplar and on pales, Pitminster.
- 6. Somerton (1923).

Form intermedians Oliv.

5. On oak, Staple Fitzpaine (1920).

Form cucullata Harm. On brick wall, Taunton (1908).

- R. evernioides Nyl. Infrequent on trees.
 - 5. Williton (1928).
 - 6. Somerton (1928).
- R. scopulorum (Retz.) Ach. (R. siliquosus A.L.Sm.). On rocks and boulders near the sea.
 - 5. Minehead, with forms tuberculosa Oliv., and cornuata (Ach.) Harm. (1911).

Var. incrassata Nyl.

5. Minehead (1908; N.R.C.).

- R. cuspidata (Ach.) Nyl. Included in R. siliquosus in B.M., 1918. On maritime rocks and boulders; rarely on hills at a distance from the sea.
 - 5. Minehead (1908); Selworthy; Volis Hill near Taunton. Form *rugosa* Oliv.
 - 5. Minehead; near Selworthy church.

Form pygmaea (Wedd.) Harm. (f. minor Nyl.). Minehead (N.R.C.).

- R. subfarinacea Nyl. On rocks, very rarely on trees.
 - 5. On wall, Minehead (1908).
- R. polymorpha Ach. On shingle. Very rare.
 - 5. Blue Anchor (1922); Dunster.

FAMILY XVII. LECANIACEÆ

Solenopsora candicans (Dicks.) Zahl. (Placolecania c. Zahl.; Diphratora c. Jatta.). On calcareous rocks and walls. Frequent.

5. Taunton (1915) and Forde Abbey (N.C.R.); Stoke St. Mary; Bishop's Hull; Oake; Wiveliscombe; Pucking-

ton; Wambrook; Whitestaunton; Wellington.

6. Claverton Down near Bath (1809; E.F.); Wells, Cleeve Hill (W.J.), Weston (Hb.R.) and Walton-in-Gordano (B.M.); Mells (P.); Uphill; Brean Down; Bleadon; Loxton; Shipham; Mendip (N.R.C.); Clevedon; Yatton; Wrington (B.M.S.); Somerton.

Lecania erysibe (Ach.) Mudd. On rocks, occasionally on trees (on elm, Higher Thurlbear) or pales. Common throughout the county (Lich.C.S.; J. of Bot. 1924). First records:

6, Bathampton (H., B.M.); 5, Taunton (1912).

Form crenulata B. de Lesd. Curland (1922), in v.c. 5.

Var. cinereofusca Mudd.

5. On calciferous sandstone wall, Langford near Taunton (1914).

6. On carboniferous limestone, Brean Down (1914; N.R.C.). Var. subcaesia Nyl.

5. On white lias wall, Thurlbear (1922).

Var. rabenhorstii (Hepp.) has apothecia which become convex and immarginate and is synonymous with Biatora proteiformis Mass., sec. Harmand. Crombie in B.M., 1894, records proteiformis from Bathampton, but the specimen in the B.M. from that locality (leg. H.) is the type. He also says that the spores are smaller and narrower (2–4 micromillimetres) than in the type, and this statement is borne out by an examination of the plants found on limestone rocks near Taunton.

5. White Lias walls near Taunton (1915; N.R.C.); Halsway and Crowcombe; Chard.

Var. sincerior (Nyl.) B. de Lesd.

5. Cheddon Fitzpaine (1928).

6. Clevedon (1923).

FAMILY XVII. LECANIACEÆ

Solenopsora candicans (Dicks.) Zahl. (Placolecania c. Zahl.; Diphratora c. Jatta.). On calcareous rocks and walls. Frequent.

5. Taunton (1915) and Forde Abbey (N.C.R.); Stoke St. Mary; Bishop's Hull; Oake; Wiveliscombe; Pucking-

ton; Wambrook; Whitestaunton; Wellington.

6. Claverton Down near Bath (1809; E.F.); Wells, Cleeve Hill (W.J.), Weston (Hb.R.) and Walton-in-Gordano (B.M.); Mells (P.); Uphill; Brean Down; Bleadon; Loxton; Shipham; Mendip (N.R.C.); Clevedon; Yatton; Wrington (B.M.S.); Somerton.

Lecania erysibe (Ach.) Mudd. On rocks, occasionally on trees (on elm, Higher Thurlbear) or pales. Common throughout the county (Lich.C.S.; J. of Bot. 1924). First records:

6, Bathampton (H., B.M.); 5, Taunton (1912).

Form crenulata B. de Lesd. Curland (1922), in v.c. 5.

Var. cinereofusca Mudd.

5. On calciferous sandstone wall, Langford near Taunton (1914).

6. On carboniferous limestone, Brean Down (1914 ; N.R.C.). Var. subcaesia Nyl.

5. On white lias wall, Thurlbear (1922).

Var. rabenhorstii (Hepp.) has apothecia which become convex and immarginate and is synonymous with Biatora proteiformis Mass., sec. Harmand. Crombie in B.M., 1894, records proteiformis from Bathampton, but the specimen in the B.M. from that locality (leg. H.) is the type. He also says that the spores are smaller and narrower (2–4 micromillimetres) than in the type, and this statement is borne out by an examination of the plants found on limestone rocks near Taunton.

5. White Lias walls near Taunton (1915; N.R.C.); Halsway and Crowcombe; Chard.

Var. sincerior (Nyl.) B. de Lesd.

5. Cheddon Fitzpaine (1928).

6. Clevedon (1923).

- L. albariella (Nyl.) Mull. On calcareous rocks and walls.
 - 5. Orchard Portman (1918) and Hele near Taunton; Lilstock.
 - 6. Burnham (1927).

Form lecideina Nyl.

- 5. Kilton (1918); Combe St. Nicholas.
- L. prosechoides (Nyl.) Oliv. On maritime rocks.
 - 5. On sea face of cliff near Greenaleigh Point (1920).
 - 6. Clevedon (1924); Sand Bay.
- L. prosechoidiza (Nyl.) A.L.Sm. On maritime rocks. Very rare. Minehead (5) and Steep Holm (6; J. of Bot. 1924).
- L. dubitans (Nyl.) A.L.Sm. (L. dimera Th.Fr.). Very rare.
 - 5. On wood of hut, Withypool (1918).
- L. syringea (Ach.) Th.Fr. On trees and pales. Rare.
 - 5. On pales with form *minuta* (B. de Lesd.), Cutley Farm near Taunton (1922). On elder, Clatworthy, Minehead and Watchet. On trees, Nailsbourne near Taunton, Langford Heathfield (f. *minuta*) and Tolland.
 - 6. On trees, Somerton (1923).
- Thalloidima coeruleo-nigricans (Light.) Th.Fr. On calcareous rocks, occasionally on calcareous soil (Lich.C.S.).
 - 6. Bathford (1856; B., B.M.); Cleeve Hill and Yatton (W.J., B.M.); Berrow (S.D.); Uphill; Goblin Combe.

Form glebosa Cromb.

- 6. Yatton (1877; W.J.).
- T. candidum (Web.) Mass. On calcareous rocks and soil.
 - 6. Cleeve Hill (1877; W.J., B.M.); Yatton and Goblin Combe (B.M.S.).
- Biatorina littorella (Nyl.) A.L.Sm. On hard rocks. Very rare.
 - Ruborough Camp, Broomfield (1914; N.R.C., B.M.);
 North Hill, Minehead (K., B.M.S., 1921).
- B. pilularis Krb. On mossy trunks of trees.
 - 5. Horner Wood (K., B.M.S., 1921).
- B. graniformis (Hag.) A.L.Sm. (B. ehrhartiana Mudd.). On pales, occasionally on tree-trunks.
 - 5. On oak, Bagborough.
 - 6. On old pine, Shapwick (1916; N.R.C.); Weston-in-Gordano.

- B. cyrtella (Ach.) Th.Fr. (Lecania c. Oliv.). On the bark of elder.
 - 5. Broomfield (1920); Combe St. Nicholas; Ely Wood near Chard.
- B. griffithii (Sm.) Mass. [B. tricolor (With.) of many authors]. On trees, usually those with smoothish bark.
 - On oak, Broomfield (1916). On willow, Buckland St. Mary. Cutley and Norton near Taunton; Perriton Combe near Minehead; Langford Heathfield; Williton.
 - 6. Wrington Warren (1923; B.M.S.); Copley Wood, Somerton. Kingsdon.
- B. fallax (Hepp.) A.L.Sm. On elm bark. This plant was recorded by Larbalestier from Leigh Wood (6) in 1865, but there is no specimen in the B.M. A plant collected from Whitford above Corfe (5) in 1927 is probably this, but the material is insufficient to decide.
- B. globulosa (Flk.) Krb. is recorded from trees at Horner near Porlock (Paulson, B.M.S. 1921).
- B. lightfootii (Sm.) Mudd. On trees, especially birch.
 - 5. Chard Common (1914); Castle Neroche; Broomfield (beech) and Holford Combe (young oak), Quantocks; Dunster (ash).
 - 6. Berkley Hill (1869) and Orchardleigh (P.); Shapwick (1916).
 - Var. commutata (Ach.) Mudd. On the trunks of old trees.
 - 5. Chard Common (1913; N.R.C.).
 - 6. Shapwick (1916).
- B. synothea (Ach.) Krb. On old pales and tree-stumps, 0–1200 ft.
 - 5. Norton (1916), Cushuish, Cheddon and Kingston near Taunton; Crowcombe; near Bagborough Plantation.
 - 6. On pales, Ashcott (1924).
 - Forms fusca B. de Lesd. and sublivescens Nyl. have been noted from old stumps, Crowcombe.
 - Var. subnigrata Nyl. On rocks. A specimen, collected by Joshua in 1876 from Bathampton Downs and determined by Crombie, is in the B.M.
- B. atropurpurea (Schaer.) Mass. On trunks of old trees, rarely on the bryophytes covering the trunks.

5. Wood above Pitminster (1916; N.R.C.); Horner Wood (1921; K., B.M.S.). The apothecia of both these plants have the hymenial gelatine persistently blue with iodine. They therefore belong to *Lecidea atropurpurascens* Nyl., which is scarcely worth distinguishing even as a form.

B. lenticularis (Ach.) Krb. Common on rocks, especially calcareous ones (Lich.C.S.), 0–1000 ft. First records: 6,

Bathampton (H., B.M.); 5, Quantoxhead (1915).

Form acrustacea (Hepp.). On Lynton slate wall, Shore-ditch near Taunton (1918).

Form nigricans Arnold. Usually on calcareous rocks.

5. Near Roadwater (1919); Kingston. On shingle near Minehead.

6. Bathampton (H., det. Crombie, B.M.); Goblin Combe; Cheddar; Ebbor Gorge; Pen Hill (leg. Corder).

Form oxydata Leight. (v. erubescens Krb.), occurs on a stone near a stream at Hatch Green (5). The coloration in this case is probably due to intermixed *Trentepohlia aurea*. A doubtful specimen was collected at Harptree Combe (6).

Var. chloropoliza (Nyl.) A.L.Sm.

6. Clevedon (1924).

B. prasina (Fr.) Syd. This is usually found on trees but a plant from a bare bank at Vexford near Stogumber (5) agrees (L.N. IV).

B. epiblastematica (Wallr.) A.L.Sm. (Scutula e. Rehm; S.

wallrothii Tul.).

6. On the thallus of *Peltigera rufescens*, Cleeve Combe (1923, Darbishire, B.M.S.).

B. episema (Nyl.) A.L.Sm. Parasitic on crustaceous lichens.5. On Lecanora coilocarpa, Cheddon Fitzpaine (1915).

6. On Aspicilia calcarea, Yatton (1875; W.J., B.M.).

Catillaria chalybeia (Borr.) Lettau. On siliceous rocks and stones.

5. Volis Hill (1917); Merridge and Cothelstone Beacon, Quantocks; Blue Anchor.

6. Pen Hill near Wells (1921; leg. Corder).

Microphiale diluta (Pers.) Zahl. (Biatorina d. Th.Fr.; Gyalecta d. Wain.). Rare.

5. On firs, Castle Neroche (1917); Whitford, above Corfe.

FAMILY XVIII. USNEACEÆ

Usnea florida (L.) Web. Common on the trunks and branches of trees, rarely on ling, rocks or sand, 0-1500 ft (W.o.S., B.S.M.). Collected from Taunton (5) in 1908 and from Bruton (6) in 1906.

Forms papulata Harm., annulata Arn., and soredifera Arn.,

have been noted from the Exe Valley.

Var. hirta (L.) Ach. Common. Habitat and first records

as the type.

U. plicata (L.) Web. (U. ceratina Ach.). Common on trees, rarely on rocks. First records: 5, Kingston (1911); 6, Bruton (1907).

Form annulata B. de Lesd. has been noted at Treborough (5).

Form scabrosa Ach.. Frequent in 5.

Form ferruginascens Crombie has been noted at Whites-

taunton (5).

U. rubiginea (Mich.) Herre, recorded in N.R.C., does not appear to be worth a specific segregation, its affinity with red forms of U. florida (especially the var. hirta) being much too close. Plants having a red colour have been noted on the Blackdowns, Brendons and at Exton in v.c. 5 and near Longleat in v.c. 6. Most of these are pendulous and must be considered as red forms of *U. plicata* Web.

 $U.\ barbata$ (Huds.) Web. $=U.\ dasypoga$ (Ach.) Nyl. On treetrunks.

- 5. Exton (1915); Treborough; Culmhead, Bewley Down and Castle Neroche, Blackdowns.
- 6. Laverton (sec. P.). Near Longleat (1915); Penselwood. Form scabrata Nyl. On oak, near Brendon Hill (5) and near Longleat (6).

Var. pendula (Schaer.) Howe. (U. plicata Ach.).

- 5. Lev Hill, Porlock (1915); Exford, Exton, Holford Combe, Quantocks.
- 6. Stourhead to Longleat (1915).

Form scabrata Nyl. is coextensive.

U. articulata (L.) Hoff. On old trees. Rare.

5. On oak, Exton (1915; N.R.C.), Whitestaunton and Culmhead. On apple and elm, Northay near Chard.

6. Wood near Gare Hill (1915; N.R.C.).

Evernia prunastri (L.) Ach. Very common on trees, shrubs and heather (on ling, Blackdowns in v.c. 5), occasionally on pales, rarely on rocks or ground, 0–1700 ft. Form munda, which is without soredia, is taken as the type. First records: Taunton (1908; W.o.S.) for 5 and Frome (P.) for 6.

Form sorediifera Ach. Common (5, Puckington, 1915; 6, Somerton, 1923).

Var. nana Lamy. On rocks, Blue Anchor in v.c. 5 (1923; L.N. II).

FAMILY XIX. PARMELIACEÆ

Cetraria aculeata (Schreb.) Fr. (var. campestris Schaer., is taken as type). On the ground, soil-capped rocks and among mosses on heathy ground, usually on the hills (600–1700 ft.) but descending to sea-level on Minehead Warren. Frequent.

5. Exmoor (1912); Blackdowns; Quantocks; Croydon

Hill; Haddon Hill; Minehead and Dunster.

6. On siliceous heaths of Mendip.

Form subnigrescens Harm.

5. Blackdowns (1915; N.R.C.); Quantocks.

Form edentula Ach.

5. Leigh Hill and Staple Hill, Blackdowns (1915; N.R.C.); Dunkery; Treborough.

Form acanthella (Ach.) Nyl.

5. Leigh Hill and Staple Hill, Blackdowns (1915; N.R.C.). Var. hispida (Light.) Cromb. (Lichen muricatus Ach.).

5. On rocks, Cow Castle, Simonsbath (1916).

Platysma glaucum (L.) Nyl. On trees, especially oak, occasionally on rocks or on the ground. Frequent in the hilly districts.

5. Quantocks (1911); Blackdowns; Brendons; Croydon Hill; Exmoor (common).

6. Kingsettle Hill (on birch, 1915); Penselwood; Mendip. Form sorediosum Oliv. Probably coextensive with the type but with definite localities from v.c. 5 only.

Var. fallax (Web.) Nyl.

- 5. Cocker Combe, Quantocks (1911); Treborough, Brendons; Millon's Combe, Exmoor. On beech, Buckland St. Mary, Blackdowns.
- 6. Penselwood (1920).
- Hypogymnia physodes (L.) Nyl. Very common on trees, frequent on pales, occasional on ling (Quantocks, Blackdowns, Exmoor and Mendip), ground (Will's Neck) or rock, 0–1700 ft. (W.o.S., B.M.S.).
 - Form labrosa Ach.. Common and coextensive with the type. Form viridis mihi. Thallus green, almost as green as in Parmelia caperata. On shaded trunk of beech, Buckland St. Mary, 900 ft. (1923). The peculiar colour is doubtless due to the shaded and moist habitat.

Var. tubulosa Schaer. Fairly frequent (N.R.C.). Habitat as in the type.

- 5. Buncombe (1908), Will's Neck and Holford Combe, Quantocks; Milverton; Wiveliscombe; Buckland St. Mary; Porlock; Exford.
- 6. Shapwick (1916).

Var. platyphylla Ach. On old pales and walls. Frequent.

- 5. Taunton district (1915; N.R.C.).; Crowcombe; Holford; Staple Hill; Buckland St. Mary; Croydon Hill to Dunster.
- 6. Standerwick (1869; P.!); Harptree Combe.

Parmelia perlata (Huds.) auct. plur. (P. trichotera Hue). Type is form sorediata (Schaer.). Common on the trunks of old trees, especially oak, occasionally on rock, 0–1500 ft. Collected by Dr. Parsons at Berkley (6) in 1869. The medulla of P. perlata Hue, has a rosy coloration when caustic potash solution is followed by bleaching powder. Specimens from Combe St. Nicholas and Otterford (and var. ciliata) show this reaction partly but no other Somerset specimen tested shows it. There is a great deal of doubt about Hue's naming and the confusion is not cleared by Du Rietz in 'Kritische Bemerkungen über die Parmelia perlata-Group' (Kristiania, 1924).

Form microphylla Wats. (N.R.C.). On flint wall, Combe St. Nicholas in v.c. 5.

Var. ciliata (D.C.) Schaer., is frequent in v.c. 5 and has been noted at Somerton in v.c. 6.

Var. claudelii Harm. A plant found on rock, Wilmersham near Porlock (5), seems to belong here (N.R.C.), though there is some doubt as to the nomenclature of Harmand's plant. He gives it as a variety of *P. perforata*.

P. crinita Ach. (P. proboscoidea Tayl.). On rock, Horner

Wood (5).

P. caperata (L.) Th.Fr. (P. cyclisphora Ach.). Common on trees, rocks and boulders, 0–1200 ft. First records: 6, Great Elm (1894; P.); 5, Taunton (1908; W.o.S.).

Form sorediosa Malbr., is frequent.

Var. saxicola Müll., is rare, though saxicolous plants of the type are common.

5. On shingle, Porlock Weir (1917).

P. conspersa (Ehrh.) Ach. On rocks and boulders.

5. Selworthy Beacon (1913); Tarr Steps, Exmoor.

Var. isidiata (Anzi) Leight. On rocks or slated or tiled roofs.

- 5. Near Porlock (1913). Slate roof, Norton Fitzwarren church.
- P. laevigata (Sm.) Ach. On mossy rocks. Rare.
 - 5. Simonsbath (1908; N.R.C.); Thorncombe Hill, Quantocks.
- P. revoluta Flk. Common on mossy trees or rocks, 0-1400 ft. (N.R.C.). It occurs on shingle at Dunster. First records: 5, Badgworthy (1913); 6, Cricket St. Thomas (1914).

Form minor Harm., is also common (N.R.C., B.M.S.).

Var. rugosa (Tayl.) Crombie, has been noted without definite locality in v.c. 5. In v.c. 6 it occurs on birch, Kingsettle Hill (N.R.C.). On beech, in the same locality, its form panniformis Crombie, occurs (1915).

P. tiliacea (Hoff.) Ach. On tree-trunks. Rare.

5. Castle Neroche (1912) and Milverton (N.R.C.).

6. Recorded from Beckington (P.) but the specimen is a somewhat atypical one of *P. scortea*.

Var. carporhizans Tayl. On trees.

5. Dunster, on the hill by the tower, on oaks, 1799 (Sowerby's herbarium, B.M.).

P. scortea Ach. On trees and pales, sometimes on rocks.

5. On slate roof, Weston Farm near Chard (1920).

6. Beckington (leg. P. 1869).

P. dubia (Wulf.) Schaer. (P. borreri Turn.). Common throughout the county on trees, occasionally on pales, rarely on rock (Blue Anchor) 50–800 ft. First records: 5, Broomfield (1913); 6, Lullington (leg. P. 1868).

Var. ulophylla (Ach.) Harm. On Lombardy poplar, Oake near Taunton (1927). On alder, near R. Tone, Bishop's

Hull.

P. reddenda Stirt., has been noted as occurring near Taunton (1915) but the specimen has been lost. It may possibly have belonged to P. negata Nyl. In any case the specific segregation of these plants is doubtful.

P. exasperata (Ach.) Carroll. On trunks of trees, very rarely on rock. This is given as common in the s. and w. counties of England by some authors, but it is probable that many

of the records refer to the next species.

5. On young oak at 800 ft., Grabbist Hill, Minehead (c. fr.

1923). On elder and shingle, Dunster.

P. fuliginosa (Fr.) Nyl. Common on trees, pales and rocks (usually siliceous), 0–1200 ft. First records: 5, Taunton (1912); 6, Bruton (1907).

Form aterrima Wedd. A very dark form on rock.

5. Withypool (1918); Porlock; Triscombe, Quantocks.

6. Ashton Court (1923; B.M.S.).

Var. glabratula (Lamy.) Oliv. (form denudata Cromb.).

5. Holford Combe, Quantocks (1915; N.R.C.).

6. Near Longleat (1915).

Var. laetevirens (Flot.) Nyl. Common on trees, rare on rocks. First records: 5, Curland (1914); 6, Shapwick (1915).

P. subaurifera Nyl. Common on trees, sometimes on pales, 0–1500 ft. First records: 5, Quantocks (1912); 6, Lullington (1869: Parson's specimen of P. olivacea, a species which has not been found in Somerset).

P. saxatilis (L.) Ach. Very common on trees, pales, walls, rocks, slates and tiles, 0-1700 ft. (V.C.H., W.o.S.,

B.M.S.). Form furfuracea Schaer., is also common.

Form panniformis Cromb. On rock, Oareford (1913) in v.c. 5.

Var. laevis Nyl. On oak, Hodder's Combe, Quantocks (1915).

- P. sulcata Tayl. Common on trees and rocks, 0–1600 ft. Collected at Tellisford (1868; P.) in v.c. 6 and near Taunton (1912) in v.c. 5.
- P. omphalodes (L.) Ach. On rocks and boulders. This has been recorded from Exmoor but without definite locality.

FAMILY XX. LECANORACEÆ

- Squamaria crassa (Huds.) D.C. (Lecanora cartilaginea A.L.Sm.). On rocks, soil-caps of rocks, ground or spreading over mosses, especially near the sea and in calcareous districts, 0–1000 ft. (Lich.C.S.).
 - 6. Cheddar (1875; W.J.) and Cleeve Hill (W.J., B.M.); Mendip (common); Brean Down; Berrow dunes.
- S. saxicola (Poll.) Hook. (Lecanora muralis Schaer.). On rocks, tiles, rarely pales, 0–700 ft.
 - Haygrass (1917), Bishop's Hull, Kingston, Norton Fitzwarren (on post) and Orchard Portman near Taunton; Minehead Warren. On boulders in R. Barle near Tarr Stepps. On roof, Combe St. Nicholas. On stone, Bagborough churchyard.
 - 6. Somerton (1923); Ashton Court and Wrington (B.M.S.).
- S. circinata (Pers.) Hook. (L. subimbricata A.L.Sm.). On sarsen stone, Staple Fitzpaine (1916; N.R.C., B.M.). This ultimately becomes red with caustic potash and thus comes under what Nylander named subcircinata.
- Ochrolechia tartarea (L.) Mass. On rocks and old tree-trunks.
 - 5. On tree, Northay near Chard (1921).

Var. subtartarea Nyl. = O. androgyna Arn.

- 5. Treborough (1915); Exton; Combes of Croydon Hill; Dunster; Minehead.
- 6. Penselwood (1920); Somerton.
- O. parella (L.) Mass. On rocks, sometimes on trees, rarely on pales. Common on rocks near the coast and frequent in hilly districts throughout the county. First records: 6, Vallis (1868; P.); 5, Taunton (1914).

Var. turneri (Sm.) B. de Lesd. On trunks of trees (oak, ash, elm, etc.).

5. Castle Neroche (1917); Wrantage; Halsway, Quantocks; Langford Budville; Chipstable.

6. Yatton (1924).

O. pallescens L. On tree, Horner Wood, near Porlock (1922).

Lecanora atra (Huds.) Ach. Common on rocks, walls, tiles, tree-trunks and pales, 0–900 ft. First records: 6, Walton-in-Gordano (1868; P.); 5, Taunton (1911).

L. subfusca (L.) Ach. On trunks of trees, rarely on pales. The type (f. typica Harm.) is not uncommon (N.R.C.).

5. Aisholt (1908), Triscombe, Hodder's and Holford Combes, Quantocks; Stoke and Orchard Portman near Taunton; Staple Hill, Castle Neroche, Combe St. Nicholas and Bewley Down, Blackdowns.

6. Penselwood (1920); Frome.

Form geographica Harm. Thallus intersected with dark lines.

5. Aisholt (1915; N.R.C.) and Merridge near Taunton; Castle Neroche.

Var. glabrata Ach. has been noted at Porlock (on birch) and at Orchard Portman near Taunton (N.R.C.). Its form argentata Ach. occurs on pales at Orchard Portman and on elm at Triscombe, Quantocks.

Var. allophana Ach. On trees, sometimes on pales.

5. Hopcott near Minehead (1911; Loydell); Horner (Paulson, B.M.S. 1921); Chard Common; Stoke St. Mary; Thurlbear; Hawkridge.

6. Somerton (1923).

Form parisiensis (Nyl.) Hue. On trees, often on pales.

5. Chipstable (1915); Nailsbourne and Staplegrove near Taunton; Crowcombe; Castle Neroche.

6. High Ham (1914); Middlezoy.

L. campestris (Schaer.) Nyl. Very common on rocks, chiefly calcareous. Collected from Bruton (6) in 1907 and from Taunton (5) in 1911.

Form detrita Hoff., a state with aborted or altered apothecia (N.R.C.) has been noted near Taunton. Form expansa (Ach.) Harm. and form atrata Nyl. occur on walls near

Taunton, but the latter seems to belong to L. coilocarpa, merely differing in the apothecia being somewhat convex

instead of plane.

L. chlarona Cromb. Common on trees and pales. Collected from Beckington (6) in 1869 (P., det. mihi) and from Taunton (5) in 1913.

Form detrita Hoff, has been noted from Taunton.

Form geographica (Mass.) Nvl.

- 5. Stoke and Merridge near Taunton (1915; N.R.C.).
- 6. Bathampton (H., B.M.).

L. chlarotera Nyl. On trees. Rare.

5. Combe St. Nicholas (1926); Norton Fitzwarren.

L. rugosa (Pers.) Nyl. Common on trunks of trees (W.o.S.). Collected from Beckington (6) by Parsons in 1869 and from Taunton (5) in 1908.

L. intumescens (Reb.) Krb. On trees, rarely on pales, 0-900 ft.

Form dispersa Oliv., is taken as type.

Horner (1915), Aisholt and Crock Street near Chard (N.R.C.); Stoke St. Mary; Croydon Hill combes to Dunster: Minehead: Oareford: Buckland Hill, Blackdowns.

Form geographica Wats. (J. of Bot. 1917).

Aisholt (1915) and Stoke near Taunton (N.R.C.).

- L. coilocarpa (Ach.) Nyl. On rocks (usually siliceous), walls and tiles. Frequent in v.c. 5.
 - 5. Horner near Porlock (1915) and many other localities.

6. Beckington (leg. P. 1869).

L. gangaleoides Nyl. On rocks and walls in hilly districts.

5. Horner (1913); Sticklepath near Monksilver.

L. cenisia Ach., var. atrynea (Ach.) Harm., is usually on siliceous rocks. I have recorded it from Thurlbear (on pale) in N.R.C., but have no specimen in my herbarium.

L. pallida (Schreb.) Schaer. (L. albella Ach.). On trees (oak, beech, apple, hazel, etc.) and pales, 100-1000 ft. Fairly

frequent (N.R.C.).

5. On hazel, Aisholt (1915); Staple, Orchard Portman, Norton, Dodhill and Cothelstone near Taunton; Wambrook and Staple Hill, Blackdowns; Croydon Hill combes to Dunster; Dulverton.

There is very little difference, save habitat, between this and the following species. If the two species are maintained most saxicolous plants go under *L. umbrina*, but a few may go under the two following forms.

Form *lithophila* Krb., p.p. On quartzite, Cothelstone (5). Form *roscida* (Smrft.) Harm. On wall, Staplegrove (5).

- L. umbrina (Ehrh.) Mass. Common on rocks. First records: Taunton (1915; N.R.C.); 6, Ashton Court (1923; B.M.S.). Form subdistans Nyl.
 - 5. On shingle, Blue Anchor.
- L. crenulata (Dicks.) Hook. On rock, usually calcareous, but occasionally invading neighbouring siliceous rock (Lich. C.S.). Infrequent.
 - 5. Bishop's Hull (1917) and Upper Cheddon near Taunton (N.R.C.); Kilton and Lilstock; Watchet; Combe St. Nicholas.
 - 6. Cheddar Head (1917; N.R.C.); Priddy; Frome; Sand Bay near Weston.
- L. sambuci Nyl. On old elders.
 - 5. Culmhead (1924; K.) and Brown Down, Blackdowns; Combe St. Nicholas and Nimmer near Chard; Broomfield. On elm, Langford Budville.
 - 6. On elm, Somerton (1928).
- Aspicilia calcarea (L.) Krb. Type=form concreta Schaer. (f. tessellata Ach.). Very common, except in the extreme west, on calcareous rocks and walls, 0-1100 ft. (Lich.C.S.; B.M.S.). First records: 6, Yatton (1875; W.J., B.M.); 5, Taunton (1911).

Form *nigrolimitata* mihi. Thallus limited by a dark line. On Carboniferous limestone, Priddy (1917).

Var. contorta (Hoff.) Th.Fr. Rare, except on Mendip.

- 5, Taunton (1914); Kilton; Orchard Portman.
- 6. Cheddar Head (1917); Mendip; Clevedon.
- A. gibbosa (Ach.) Krb. On hard siliceous rocks.
 - 5. Oareford (1913); St. Audries; Wambrook; Cheddon Fitzpaine.
 - 6. Ashton Court (1923; B.M.S.); Clevedon.
- A. cinerea (Ach.) Krb. On siliceous rocks and walls.
 - 5. Oare (1913); Selworthy Hill.

There is very little difference, save habitat, between this and the following species. If the two species are maintained most saxicolous plants go under *L. umbrina*, but a few may go under the two following forms.

Form *lithophila* Krb., p.p. On quartzite, Cothelstone (5). Form *roscida* (Smrft.) Harm. On wall, Staplegrove (5).

- L. umbrina (Ehrh.) Mass. Common on rocks. First records: Taunton (1915; N.R.C.); 6, Ashton Court (1923; B.M.S.). Form subdistans Nyl.
 - 5. On shingle, Blue Anchor.
- L. crenulata (Dicks.) Hook. On rock, usually calcareous, but occasionally invading neighbouring siliceous rock (Lich. C.S.). Infrequent.
 - 5. Bishop's Hull (1917) and Upper Cheddon near Taunton (N.R.C.); Kilton and Lilstock; Watchet; Combe St. Nicholas.
 - 6. Cheddar Head (1917; N.R.C.); Priddy; Frome; Sand Bay near Weston.
- L. sambuci Nyl. On old elders.
 - 5. Culmhead (1924; K.) and Brown Down, Blackdowns; Combe St. Nicholas and Nimmer near Chard; Broomfield. On elm, Langford Budville.
 - 6. On elm, Somerton (1928).
- Aspicilia calcarea (L.) Krb. Type=form concreta Schaer. (f. tessellata Ach.). Very common, except in the extreme west, on calcareous rocks and walls, 0-1100 ft. (Lich.C.S.; B.M.S.). First records: 6, Yatton (1875; W.J., B.M.); 5, Taunton (1911).

Form *nigrolimitata* mihi. Thallus limited by a dark line. On Carboniferous limestone, Priddy (1917).

Var. contorta (Hoff.) Th.Fr. Rare, except on Mendip.

- 5, Taunton (1914); Kilton; Orchard Portman.
- 6. Cheddar Head (1917); Mendip; Clevedon.
- A. gibbosa (Ach.) Krb. On hard siliceous rocks.
 - 5. Oareford (1913); St. Audries; Wambrook; Cheddon Fitzpaine.
 - 6. Ashton Court (1923; B.M.S.); Clevedon.
- A. cinerea (Ach.) Krb. On siliceous rocks and walls.
 - 5. Oare (1913); Selworthy Hill.

6. Clevedon (1924).

- A. lacustris (With.) Lindau. On rocks which are sometimes inundated.
 - 5. On wall, 1300 ft., Simonsbath (1918).
- A. prevostii (Fr.) Lindau. On calcareous rocks (Lich.C.S.).
 - 6. Bathampton (H., B.M.). On dolomitic conglomerate, Shipham, and common on Carboniferous limestone, Priddy to Cheddar (N.R.C.).
 - Form melanocarpa Kremp., is recorded from Bathampton (V.C.H.). Holl's specimen in the B.M. from that locality is mostly Verrucaria integra, and it is therefore difficult to say whether the form is present or not.

FAMILY XXI. LECIDEACEÆ

Psora lurida (Sw.) D.C. On soil in crevices of calcareous rocks (Lich.C.S.).

6. Cheddar Cliffs! (E.F. and W.J., B.M.). Yatton (W.J.) and Bathford Hill (H., B.M.); Cheddar Head; Goblin and Brockley Combes. On dolomitic conglomerate, Shipham.

Joshua placed his specimens from Yatton and Cheddar

under form pallescens Th.Fr.

P. testacea Hoffm. On the ground. Very rare.

6. Cleeve Hill (B.M.); Wrington Warren (B.M.S.).

P. decipiens (Ehrh.) Hook. On calcareous soil (Lich.C.S.).

6. Beckington and Frome (1869; P.); Winscombe (W.J.,

B.M.).; Bruton (N.R.C., B.M.).

Biatora lucida (Ach.) Fr. Common on shady rocks and walls, occasionally on decaying vegetation, 0–1500 ft. Apothecia very rarely occur but were noticed at Huish Champflower. First records: 5, Porlock (V.C.H.); 6, Shipham (1919).

B. clavulifera (Nyl.) Arn.

- 5. On heap of flints, Linnington near Chard (1921). In nooks of the same heap the form *subviridicans* Nyl. was found.
- B. quernea (Dicks.) Fr. On the trunks of old trees or on pales.
 5. On oaks, Hawkridge (1912), Broomfield, Bagborough and Milverton near Taunton. On pales, Crowcombe and

Orchard Portman. On oak and pales, Combe St. Nicholas. Dunster (K., B.M.S., 1921); Wembdon (Corder); Huish Champflower.

6. Standerwick (leg. P. 1869). On pale, Biddisham. Ashton Court (B.M.S.).

B. gagei Sm. On siliceous rocks.

6. Bathampton (H., B.M.).

B. praerimata Nyl.

5. On slaty rock, Treborough (1916; N.R.C.).

- B. coarctata (Sm.) Th.Fr. On walls and rocks, chiefly brick and sandstone, but also on harder siliceous rock such as flint and Lynton slate, 0–1300 ft. Type=form ocrinoeta Ach.
 - 5. Broomfield (1914), Triscombe, Thorncombe Hill and Cothelstone, Quantocks; Selworthy (K., B.M.S., 1921) and Greenaleigh Point near Minehead; Orchard Portman and Dodhill near Taunton; Sticklepath, Clayhanger and Wambrook near Chard; Staple Hill, Buckland Hill and Leigh Combe, Blackdowns.

6. Black Down, Mendip (1919).

Var. elacista (Ach.) Th.Fr.

5. Broomfield (1914), Cothelstone and Will's Neck, Quantoeks.

6. Black Down (1919).

Form variolosa Flot. Cothelstone (1917).

Form subcrenulata Cromb. Cothelstone (1917).

Form moriformis mihi. Apothecia dark - reddish - brown, minute, confluent in small mulberry-like masses.

On stones, Will's Neck, 1260 ft. (1927).

Var. glebulosa (Sm.) Arn. Occasionally occurs in v.c. 5. On wall, Grabbist Hill near Minehead (1923). Its form microphyllina (Fr.) occurs at Buckland Hill and Cothelstone

B. granulosa (Ehrh.) Lindau. (Lecidea decolorans Flk.). On peaty ground, 600–700 ft.

5. Common on the hills. First record: Culmhead (1913).

6. Common on Black Down at 1000 ft. (1915).

Form saxatilis Larb. Erratic on moist stones.

5. Linnington near Chard (1921); Cothelstone.

- B. flexuosa Fr. On old pales and stumps of trees.
 - 5. Castle Neroche (1917).
 - 6. Penn Pits near Wincanton (1920).

Form aeruginosa Borr.

- 5. Castle Neroche (1917).
- 6. Recorded from Standerwick and Tellisford by Dr. Parsons but his specimen from the former locality is *B. quernea*.
- B. uliginosa (Schrad.) Fr. On peaty ground ascending to 1700 ft. A bare bank bordering Ely Wood near Chard is the locality noticed with the lowest altitude (400 ft.), though it probably occurs at or near sea-level on the turf moor.
 - 5. Common on the hills. First record: Broomfield (1914; N.R.C.).
 - 6. Cleeve Hill (1915).
 - Var. humosa (Ehrh.) Fr., occurs in a similar habitat but is rare.
 - 5. On bare bank, Broomfield (1914; N.R.C.). The spores are slightly larger than those of the type from the same locality.
 - Var. fuliginea (Ach.) Fr. On pales and dead wood. This is usually given specific rank but it does not differ from the type except in habitat (New Phytologist, 1927, p. 61).
 - 5. Castle Neroche (1913), Curland and Bickenhall, Black-downs; Norton Fitzwarren; Corfe; Cushuish Combe and top of Aisholt Combe, Quantocks; Gupworthy near Dunster.
 - 6. Weston-in-Gordano (1923).
- B. vernalis (L.) Fr. On decayed mosses on the ground or rocks. Recorded from Road by Dr. Parsons but the specimen in his herbarium is Bacidia luteola.

Form minor (Nyl.) Arn. On the bark of trees.

- 6. Bathford Hill (1856; B.). The specimen is in the B.M., but the apothecia are not pale testaceous.
- B. micrococca Krb. Very rare.
 - 5. On bases of larch, Castle Neroche (1924; B.M. 1926).
- B. turgidula (Fr.) Nyl. On bases of beech and on neighbouring stones or soil, 600–1000 ft.

5. Cothelstone (1917) and Broomfield, Quantocks (B.M. 1926); Buckland Hill and Bewley Down, Blackdowns; Leigh Wood, Brendons.

Form pithyophila (Somm.) Arn.

- 5. Leigh Wood, Brendons (1918); Cothelstone.
- B. asserculorum (Ach.) Arn. (Lecidea misella Ach.).
 - 5. On base of beech trunk, Cothelstone (1917).
- B. fuscorubens Nyl. (B. ochracea Hepp.). Frequent on calcareous rocks, walls and stones (Lich.C.S.). First records: 5, Stoke St. Mary (1914); 6, Yatton (1915). The specimen sent to the B.M. was collected at Orchard Portman and I recorded it from Wrington in B.M.S. Lecidea sympathetica Tayl., recorded in N.R.C., from Stoke St. Mary, Thurlbear and Quantoxhead, must be regarded as a form of the above with darker apothecia than usual. A similar form has been noted at Cleeve and Brockley Combe in v.c. 6.

B. semipallens Nyl.

- 5. On washed rocks, Hodder's Combe, Quantocks (1915).
- B. immersa (Web.) Lind. Lecidea calcivora Nyl. On calcareous rocks.
 - 6. Bathampton (1845; Hb.S.), Weston-super-Mare (1874; W.J.) and near Bath (B.M.); Cheddar (V.C.H.); Frome; Mendip (common).

B. metzleri Krb. On calcareous rocks.

- 6. Yatton (W.J. 1876, B.M.)! This is recorded as *L. chondrodes* in Leighton's *Flora* and in *V.C.H.* Brockley Combe; Sandford Hill; Cleeve (B.M.S.).
- B. rufofusca Anzi. Very rare; first record for England. The paraphyses are remarkably rigid and cylindrical.
 - 5. On base of beech near Cothelstone Lodge, 900 ft. (1927; teste Paulson).

B. cyclisca Massal. On limestone.

- 6. Bathampton Downs (H. 1865, B.M.). The locality was given as in Wiltshire in B.M. 1911, but was corrected to Somerset in B.M. 1926.
- Lecidea rivulosa Ach. On hard siliceous rocks, 0-1700 ft.
 - 5. Hurlstone Point (1908; W.P.Hiern, L.E.R. 1911.)

Common on shingle at Greenaleigh Point; Selworthy (K., B.M.S. 1921); Minehead; Wilmersham near Porlock; near Cothelstone Beacon; Linnington near Chard.

L. kochiana Hepp. var. lygea (Ach.) Leight.

5. On stones at summit of Dunkery (1927).

L. parasema Ach. Very common throughout the county on trees and pales, 0–1700 ft. (B.M.S.). Collected from Beckington in v.c. 6 by Dr. Parsons (1869) and from Taunton (1910) in v.c. 5.

Form limitata Ach., is also common.

Form atrorubens (Fr.) Arn. On elder, Broomfield (1924).

Var. tabescens (Krb.) Leight. On stump, Treborough (1915; N.R.C.). On elm, Holway near Taunton (N.R.C.). On gate, West Hatch. On hedges, Staplegrove. On beech and surrounding soil and stones, Cothelstone. Crowcombe (with a greenish thallus).

Var. elaeochroma Ach. Common on trees and pales, 0–1500 ft. Collected from Beckington in 1869 (P.), near Bath (H., B.M.) and near Bristol (B.M.S.) in v.c. 6, and from

Wiveliscombe in v.c. 5 during 1913.

Form *limitata* Ach. is probably frequent but has been definitely noted in few localities.

5. On hawthorn and dogwood, Watchet Hill (1923).

6. Beckington (*leg.* P. 1869).

Var. flavicans (Ach.) Th.Fr. (var. flavens Nyl.). Common on trees. First records: 5, near Taunton (1914; N.R.C.); 6, near Bristol (1923; B.M.S.).

- L. dubia (Borr.) Hook. On old pales. This plant differs so little from the above variety of L. parasema that it is probably better included in it as a form.
 - 5. Taunton (1916; N.R.C.); Treborough; Chipstable.

6. Penselwood (1920).

L. latypea Ach. On siliceous rocks.

- 5. Near Taunton (1915); Selworthy (K., B.M.S. 1921); Huish Champflower; Smith's Combe, Quantocks (leg. P. 1913) is form latypiza (Nyl.) A.L.Sm.
- L. goniophila (Flk.) Schaer. L. enteroleuca Ach. of continental botanists. On rocks, siliceous or calcareous.

- Langford, Haygrass and Kingston near Taunton (1914);
 Combe St. Nicholas.
- 6. Limpley Stoke near Bath (H., B.M.); Clevedon.
- L. protrusa Schaer. On rocks and stones, 0-1200 ft.
 - 5. Merridge (1914) and Orchard Portman near Taunton; Street Ash and Combe St. Nicholas; Brendon Hill; Huish Champflower; Greenaleigh Point.
 - 6. Ashton Court near Bristol (1923; B.M.S.).

Var. subviridans (Ach.) A.L.Sm.

- 5. Merridge (1914) and Greenaleigh Point (N.R.C.); Raleigh's Cross; Cheddon Fitzpaine; Blue Anchor.
- L. viridans (Flot.) Krb.
 - 5. On heap of flints, Linnington near Chard (1921).
- L. leucophaea (Flk.) Nyl.
 - 5. On shingle, Minehead (1916).
- L. lithophila Ach.
 - 5. Dunkery at 1700 ft. (1927).
 - Form ochracea (Ach.) Nyl. (L. spilota form ochracea Leight.).
 - 5. On flints, Linnington near Chard (1920).
 - 6. Batheaston (B., sec. Leighton's Flora, 1879).
- L. lithophiliza Nyl.
 - 5. On siliceous wall, Staplehay near Taunton (1917, B.M.).
 - 6. Pen Hill, Mendip, at 900 ft. (Corder, 1921).
- L. jurana Schaer. On calcareous rocks.
 - 6. Bathampton Downs (H., B.M.).
- L. corollida Stirt. On rocks. Very rare.5. Leighland near Washford (1916; N.R.C.).
- L. albocoerulescens (Wulf.) Ach. On rocks.
 - 5. Wortheal near Whitestaunton (1925).
- L. crustulata (Ach.) Krb. On arenaceous rocks and flints, very rarely lignicolous, 0–1600 ft.
 - 5. Castle Neroche (1912) and Dunkery (N.R.C.); Will's Neck and Cothelstone, Quantocks; North Hill, Minehead and Porlock (Paulson); Huish Champflower and Clatworthy; Near Roadwater; Leigh Combe and Wambrook, Blackdowns.
 - Form fuscella (Mudd.) A.L.Sm.
 - 5. On flints, Castle Neroche (1913; N.R.C.); Cothelstone and Will's Neck; Dunkery.

Var. meiospora (Nyl.) Oliv.

5. Wambrook near Chard (1917).

L. contigua (Hoffm.) Fr. Very common on siliceous rocks and stones, 0–1700 ft. First records: 5, Aisholt (1912); 6, Bleadon (1912).

Forms limitata Leight., leprosa Leight., nobilis (Fr.) Leight. and hoffmanni Leight. are common (N.R.C.).

Form pustulata Leight.

5. Blagdon Hill (1916; N.R.C.) and Sticklepath, Blackdowns.

Var. calcarea Fr. A whitish variety on siliceous rocks.

5. Near Roadwater (1916; N.R.C.); Huish Champflower and Treborough; Kents, Exe Valley; Withypool; Cothelstone.

Var. platycarpa (Ach.) Fr. L. macrocarpa (D.C.) Steud.

5. Quantocks (1915; N.R.C.); Simonsbath.

Form hygrophila (Fr.). Quantocks (1915; N.R.C.; Lich. F.W.).

Var. flavicunda (Ach.) Nyl. On mountains.

5. Dunkery at 1700 ft. (1927).

L. percontigua Nyl. On siliceous rocks.

5. Huish Champflower (1919); Clatworthy; Blagdon and Wortheal, Blackdowns; Upper Cheddon near Taunton (L.N. III).

L. dicksonii Ach.

5. Common on rocks in Horner Wood (1913; N.R.C.).

L. sublatypea Leight. On siliceous rocks and walls, rarely on brick.

5. Cheddon near Taunton (1915; N.R.C.). On talus, Halsway Combe, Quantocks. On walls, Croydon Hill to Dunster.

L. deparcula Nyl.

5. On Lynton slate wall, Cheddon, near Taunton (1920).

L. illita Nyl. This was collected from argillaceous rock at Clifton. This locality was given as a Somerset one in B.M. 1911 but, as it is on the Gloucestershire side of the river, it was corrected in B.M. 1926.

L. nigrogrisea Nyl. On calcareous rock.

5. Thurlbear (1924).

- 6. Somerton (1923).
- L. aglaea Somm. On rocks.
 - 5. St. Audries (1916).
- L. prominula Borr.
 - 5. On Lynton slate wall, Cheddon (1915).
- L. furvella Nyl. On rocks.
 - 5. At the top of Cocker Combe, Quantocks (1923).
- L. sylvicola Flot. On rocks.
 - 5. On shingle, Blue Anchor (1922). On talus, Triscombe, Quantocks. On loose stones at 900 ft., Staple Hill.
 - Var. hellbomii (Lahm.) Leight.
 - 5. Grabbist Hill, Minehead, at 900 ft. (1923).
 - Var. infidula (Nyl.) Cromb. On siliceous stones.
 - 5. On wall, Blagdon Hill (1915; N.R.C.) at 900 ft.; on half-buried stones at 900 ft., Culmhead; on flints beneath beeches, Bewley Down, Blackdowns. Near Washford (N.R.C.); Selworthy (K., B.M.S., 1921).
- L. expansa Nyl. On rocks and flints.
 - 5. Broomfield (1914; N.R.C.) and Cothelstone, Quantocks. On shingle, Blue Auchor (N.R.C., B.M.).
- L. declinans Nyl.
 - 5. Cocker Combe, Quantocks (1924).
- L. confluens (Web.) Ach.
 - 5. A plant collected at Greenaleigh Point may be a form of this species.
 - 6. Recorded from Woolverton (P.). There are two specimens in the Taunton Museum collected by him and so-named. One is Acrocordia epipolaea and the other is Biatorella pruinosa. It is also recorded from Batheaston (V.C.H.) but is not given in Leighton's Flora nor in any of the B.M. monographs.
- L. sorediza Nyl. On rocks and walls, often on talus of siliceous rocks, 0–1700 ft., usually in hilly districts.
 - 5. Frequent on the hills (N.R.C.).
 - 6. Bleadon (1912; N.R.C.).
 - Form depauperata Cromb.
 - 6. Bleadon (1912; N.R.C.).
- L. soredizodes (Lamy.) Lindau. On rocks (L.N. III) at about 900 ft.

- 5. Curland and Staple Hill, Blackdowns; Ruborough Camp, Quantocks.
- L. cinerascens (With.) A.L.Sm. (L. speirea Ach.).

5. On rock, Oareford (1917).

FAMILY XXII. BACIDIACEÆ

- Toninia aromatica (Sm.) Mass. Common on mortar of walls, in earthy nooks of calcareous rocks, or on calcareous rocks with thin soil-cap (Lich.C.S.). First records: 6, Bathampton (H., B.M.); 5, Crowcombe (1911).
- T. caradocensis (Leight.) Lahm. On pales.

5. Dodhill near Taunton (1924).

T. squamulosa (Deakin) Mudd.

- 6. Bathampton (leg. H., teste Crombie, B.M.).
- T. mesoidea (Nyl.) Zahl. Very rare. On rocks.
 - 6. Steep Holm (leg. Mc.Lean, J. of Bot. 1924).

Bilimbia naegelii (Hepp.) Anzi. On the bark of trees.

- On privet, Poundisford (1918). On hawthorn, Norton. On maple, Hillfarrance. Cheddon and Kingston near Taunton. On elder, Combe St. Nicholas.
- B. sphaeroides (Dicks.) Krb. On trees, especially on elder.
 - 5. Crowcombe (1924); Broomfield; Combe St. Nicholas.
 - 6. Recorded from Holwell (1870; P.) but the specimen is B. sabuletorum.
- B. subviridescens (Nyl.) A.L.Sm. Very rare.
 - 5. On heathy bank, North Hill, Minehead (1926; L.N. III). Var. trisepta (Naeg.) A.L.Sm.
 - On soil over decaying vegetation, Perriton Combe near Minehead (1923; L.N. III).
- B. sabuletorum (Flk.) B. & R. Common throughout the county, incrusting bryophytes on rocks, walls and occasionally decaying trunks of trees, 0–1000 ft. or higher. First records: 6, Bathampton (H., B.M.); 5, Taunton (1913).

Form viridis Wats. (N.R.C., J. of Bot. 1917).

- 5. On path-side, Gupworthy near Dunster (1920).
- 6. On soil-capped rocks, Vallis near Frome (1921).

Form albicans mihi. This form differs from the type in its much whiter thallus. In the type the thallus is usually sordid-greyish. The apothecia are typical in the form.

5. On mortar of wall, Bishop's Hull, where it has been noticed for many years as maintaining the white character which strikingly distinguishes it from other *B. sabuletorum* of the district.

Form atrior (Stiz.) B. de Lesd. With dark apothecia.

- 5. Buckland St. Mary (1920), Cheddon and Norton near Taunton.
- 6. Goblin Combe near Yatton (1923); Weston-in-Gordano. Var. septenaria (Nyl.) A.L.Sm.
- 5. On crumbling mortar in crevices of moist, shady wall, Curland (1926).

Var. simplicior (Nyl.) A.L.Sm.) (Toninia squalescens Th.Fr.). 5. Wall near Taunton (1913).

B. lignaria (Ach.) Mass. (B. milliaria Krb.).

- 5. On soil in crevice of wall, Cothelstone (1927). On arenaceous rock (*Lecidea saxigena* Uloth.), Bewley Down (1917).
- B. melaena (Nyl.) Arn. On turfy ground. 5. Gupworthy, Croydon Hill (1920).
- B. effusa Auersw. (Lecidea auerswaldii Stiz.; Bacidia effusella Zahl.). First record for the British Isles (L.N. III).
 - 5. In cracks of bark of an old elm near Norton Manor (1927), Taunton.
- Bacidia rubella (Ehrh.) Mass. (B. luteola Mudd.). On trunks of trees, chiefly elms. Apparently commoner at low altitudes.
 - Thurlbear (1917), Norton, Hatch and Staple near Taunton; Langford Budville.
 - 6. Near Frome (leg. P. 1866); Bathampton (H., B.M.).
- B. phacodes Krb. B. albescens (Arn.) Zwackh. On trunks of trees (elm, maple, elder, ash, ivy, etc.).
 - 5. Thurlbear (1917), Staplegrove, Hillfarrance, Norton, Broomfield and Curland, near Taunton; Combe St. Nicholas; Langford Heathfield.
 - 6. Somerton (1923).

Form chlorotica (Ach.) A.L.Sm., with greenish thallus.

- 5. Norton (elm) and Higher Thurlbear near Taunton. On ivy and ash, Combe St. Nicholas.
- B. effusa (Sm.) Arn. On trees.
 - 5. Staplegrove (1923); Broomfield (elder); Combe St. Nicholas (ivy).
 - 6. On elm, Copley Wood, Somerton (1923; B.M. 1926).
- B. inundata (Fr.) Krb. On rocks or boulders, in or near streams.
 - 5. Smith's Combe, Quantocks (1913; N.R.C.; Lich.F.W.).
- B. beckhausii Krb.
 - 5. On elder, Combe St. Nicholas (1926).
- B. arceutina (Ach.) Br. & R. (Lecidea effusa v. fuscella in V.C.H.). On smooth trunks of trees (ash, oak, elm, elder), rarely on pales.
 - 5. Staple (elm, 1914), Badger Street, Poundisford, Adcombe, Blagdon and Dodhill (pale) near Taunton; Brown Down, Blackdowns.
- 6. Bathampton (H., teste Cromb., B.M.). Somerton (B.M.). B. incompta (Borr.) Anzi.
 - 5. On elder, Brown Down, Blackdowns (1926).
- B. muscorum (Sw.) Mudd. Incrusting mosses on wall-tops, boulders and soil (S.D.).
 - 5. Staplegrove (1918), Upper Cheddon and Dodhill near Taunton; Minehead.
 - 6. Claverton Downs (E.F. 1809, B.M.); Bathampton (H., B.M.); Sandhills at Berrow (N.R.C.); Steep Holm (McLean, J. of Bot. 1924); Goblin Combe near Yatton.
- B. atrogrisea (Del.) Arn. (B. endoleuca Kichx.). On trees (ash, beech, elder, elm, etc.).
 - 5. Stoke St. Mary (1916); Hatch Beauchamp; Crowcombe; Chipstable; Combe St. Nicholas; Chard; near Tolland.
 - 6. Bathampton (H., B.M.).
- B. umbrina (Ach.) B. & R. On rocks and stones.
 - 5. Porlock (K., B.M.S. 1921). On quartzite block above Cushuish combe, Quantocks. Blue Anchor. Wiveliscombe.

Var. compacta Th.Fr.

5. On surface of buried boulder in field above Wiveliscombe (1923).

Leciographa parasitica (Flk.) Mass. Parasitic on the thallus of Pertusaria and Lecanora parella.

5. On *Pertusaria wulfenii* and *P. communis* on oak tree, Broomfield (1913, N.R.C.). On *P. wulfenii*, Winsham (N.R.C.). On *P. communis*, Trull.

Bombyliospora incana (Ach.) A.L.Sm. Recorded from Great Elm by Dr. Parsons who, later on, realised that his record was a mistake. His specimen is a *Lepraria*.

Rhizocarpon alboatrum (Hoff.) Th.Fr. Common on trees and pales throughout the county, 0–600 ft. First records: 6, near Frome (P. 1869); 5, Taunton (1912).

Form athroum Ach. = Diplotomma populorum Mass.

5. On elm, Orchard Portman (1917).

6. Somerton (1923).

Form trabinellum (Fr.) A.L.Sm.

6. Somerton (1923).

Var. epipolium (Ach.) A.L.Sm. Common on rocks and stones, 0–1000 ft. First records: 6, Laverton (leg. P. 1869); 5, Taunton (1914).

Form margaritaceum (Ach.) A.L.Sm.

5. Dodhill near Taunton (1923).

Form ambiguum (Ach.) A.L.Sm.

5. Upper Cheddon near Taunton (1920).

6. Frome (1921); Burnham.

R. geographicum (L.) D.C. On rocks, especially on the hills above 1000 ft., but also found on shingle at sea-level in mountainous districts, 0–1700 ft.

5. Dunkery (1912); Badgworthy; Horner; Selworthy; Greenaleigh Point and Minehead Warren; Porlock.

6. Black Down (1920).

R. viridiatrum (Flk.) Krb. On rocks and boulders in hilly districts, 0–1000 ft.

5. Greenaleigh Point (1920) and Grabbist Hill, Minehead; Porlock (Paulson, B.M.S. 1921); Lydeard Hill, Quantocks; Dodhill near Taunton.

6. Vallis near Frome (1921).

R. petraeum (Wulf.) Mass. (Lecidea concentrica Davies).
Common on rocks, chiefly calcareous, 50–1000 ft. First

records: 5, Forde Abbey bridge (1916); 6, Shipham (1920).

Form impressulum (Leight.) A.L.Sm.

5. Near Roadwater (1916; N.R.C.); Brendon Hill; Badger Street near Taunton.

Var excentricum (Ach.) A.L.Sm. On sarsen stone, Badger Street (1918); Dodhill, Shoreditch, Crowcombe and Stogumber near Taunton; Brendon Hill.

6. Shipham (1920).

Form coarctatum Leight.

5. North Hill (1922).

R. confervoides D.C. Common throughout the county on hard siliceous rocks, often on flints, 0-1700 ft. First records: 5, Quantocks (1912); 6, Black Down (1915).

Form albicans (Flot.) A.L.Sm. Common. First records: 5, Merridge (1914; N.R.C.); 6, Penselwood (1920).

Form cinereum (Flot.) A.L.Sm. Common. First records: 5, Blackdowns (1916; N.R.C.); Mendip (1920).

Form coracinum (Flot.) A.L.Sm. Common. First records as above.

Form dispersum (Leight.) A.L.Sm.

5. On Lynton slate wall, Cheddon Fitzpaine (1915; N.R.C.); Blue Anchor, Dunster and Grabbist Hill near Minehead. Form fuscescens (Leight.) A.L.Sm.

5. On shingle, Minehead (1916).

R. obscuratum (Ach.) Mass. On siliceous rocks.

- 5. Smith's Combe (1913; N.R.C.), Quantocks; Dodhill near Taunton; Holman Clavel, Blackdowns; Simonsbath.
- 6. Pen Hill (Corder, 1921).

Form ferratum (Nyl.) A.L.Sm.

5. On siliceous wall, 1300 ft., Simonsbath (1918).

Form lavatum (Fr.) Th.Fr. On water-washed mountain rocks.

5. On stones in water runnel, Holman Clavel (1923).

Lecanactis premnea (Ach.) Wedd. On trunks of old trees, not uncommon on oaks, 50–1000 ft.

5. Porlock (V.C.H.). On oak, Broomfield; Staplehay near Taunton; Croydon Hill combes above Dunster; Horner (K.).

- 6. Yeovil (1916); Stavordale near Wincanton; Ashton Court (B.M.S.).
- L. abietina (Ach.) Krb. On trunks of trees, frequent on oaks but usually without apothecia. The spermogoniiferous condition is frequently found (N.R.C.).
 - 5. Broomfield (N.R.C., B.M.); Cothelstone and Holford Combe, Quantocks; Taunton; Horner Wood (K.!); Exmoor.
 - 6. Road near Frome (1869; P.); Somerton (1923).

FAMILY XXIII. ACAROSPORACEÆ

Acarospora fuscata (Nyl.) Arn. On siliceous rocks.

- 5. Selworthy (1920; K.). On walls, Dodhill and Orchard Portman near Taunton.
- 6 On wall of barn, Penselwood (1920). Ashton Court (B.M.S.). Mineries above Harptree Combe, Mendip.
- A. rufescens (Turn.) Magn. On siliceous rocks.
 - 5. Selworthy (1920; K.).
- A. cervina Mass. [A. percaenoides (Nyl.) Flag.] On calcareous rock.
 - 6. Yatton (W.J. 1883, B.M.).
- A. scyphulifera Wain., seems to be the nearest determination for a plant collected on shingle, Blue Anchor, in 1922.
- Biatorella pruinosa (Sm.) Mudd. Common on calcareous rocks (Lich.C.S.), walls and mortar throughout the county. Collected at Taunton (v.c. 5) in 1910 and at Yeovil (v.c. 6) in 1916.

Form nuda (Nyl.) A.L.Sm.

- 5. Frequent in the Taunton and Chard (N.R.C.) districts. Kilton, Dunster (K.).
- 6. Woolverton (leg. P. 1869).

Form albocincta (Cromb.) A.L.Sm.

- 5. Combe St. Nicholas (1926). Near Taunton.
- B. simplex (Dav.) Br. & Rostr. On rocks, often on Lynton slate walls.
 - 5. Shoreditch (1915), Dodhill, Cheddon and Gotton near Taunton. Huish Champflower.

Forms complicata Cromb. and strepsodina Ach. have been noted at Shoreditch and Cheddon near Taunton (5).

B. flava (Johns.) A.L.Sm.

5. On white lias stones, Thurlbear (1927).

B. hypophea (Nyl.) A.L.Sm.

5. On limestone wall, Hele near Taunton (1927).

B. moriformis (Ach.) Th.Fr.

5. On old stump, Wortheal near Whitestaunton (1921).

FAMILY XXIV. PERTUSARIACEÆ

Pertusaria velata (Turn.) Nyl. On trees, sometimes spreading over neighbouring mosses. Rare.

5. On oak, Milton's Combe near Winsford (1915; N.R.C.). On oak, Broomfield.

Form aspergilla Cromb. (non Lichen aspergillus Ach.).

- 5. On oak, Hodder's Combe, Quantocks (1915; N.R.C., B.M.). On oak, Leigh Wood, Brendons.
- P. faginea (L.) Leight. P. amara (Ach.) Nyl. Very common on trees but seldom with apothecia. It is rarely saxicolous but occurs on stone at Hodder's Combe and at Orchard Portman. First traceable records: 5, Near Taunton (1908; W.o.S.); 6, Great Elm (1869; P.).

P. globulifera (Turn.) Nyl. On trunks of old trees.

5. Wrantage (on elm, 1917).

Form discoidea Cromb. Common throughout the county (W.o.S.). First traceable records: 5, Near Taunton (1908); 6, Standerwick (1869; P.).

Form *lignicola* mihi. On pales and other worked wood. Thallus often less rugose and sorediate than usual but marginal zonation well shown.

5. Combe St. Nicholas (1923). Orchard Portman.

P. leptospora Nitsch. [P. multipuncta (Turn.) Nyl. p.p.].

5. On birch, Horner Wood (1913; N.R.C.). On mountain ash, Croydon Hill (N.R.C.). On ash, Hodder's Combe, Quantocks. On hazel, Staple Hill (900 ft.).

P. lactea (L.) Nyl. On rocks.

5. North Hill, Minehead (1916). On shingle, Greenaleigh Point (N.R.C.). Selworthy (K.).

